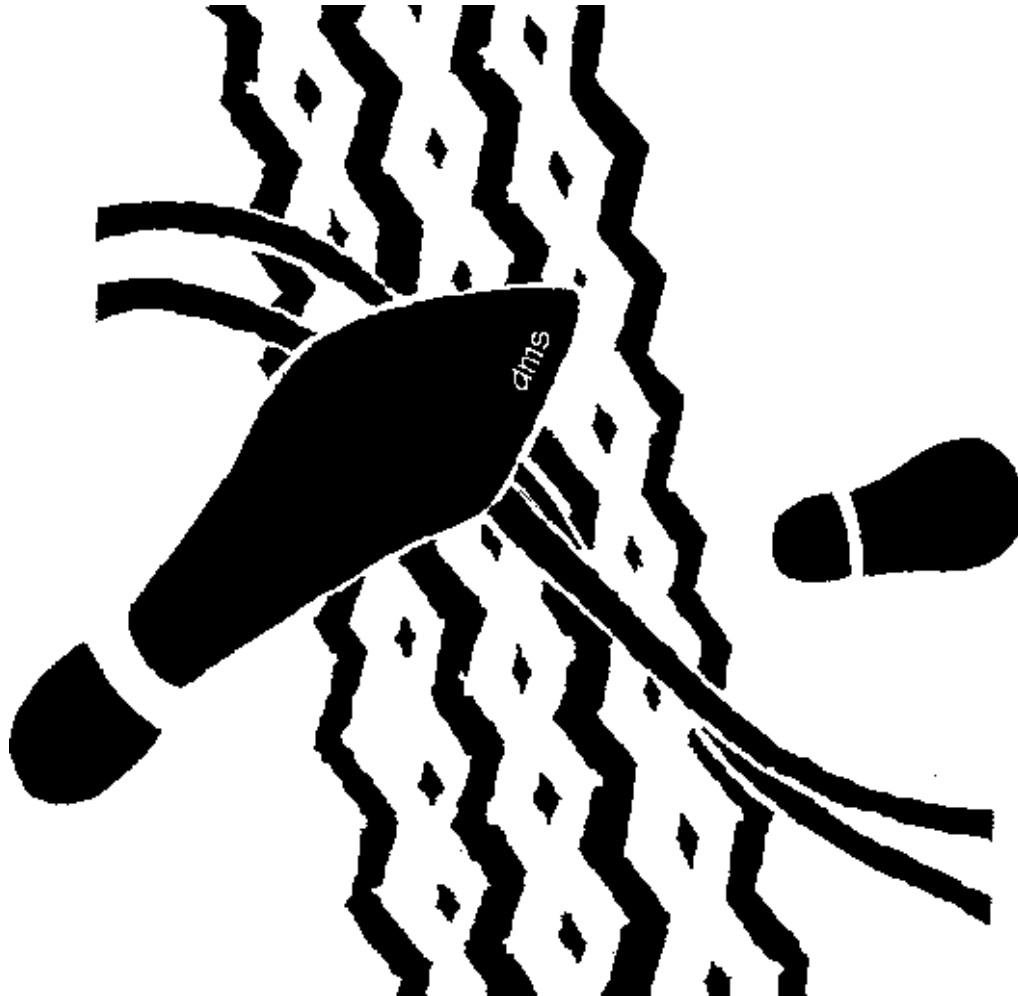


MAKING

STREETS



THAT

WORK

City of Seattle neighborhood planning tool
Design Commission
Engineering Department
Office of Management and Planning
Pedestrian Advisory Board



Making Streets that Work



City of Seattle
Design Commission
Engineering Department
Office of Management and Planning
Pedestrian Advisory Board

neighborhood planning tool

May 1996

Office of the Mayor City of Seattle

Norman B. Rice, Mayor



May 1996

Congratulations and thank you for joining us in *Making Streets that Work!* You are about to take the next step in making Seattle a more livable city. By being actively involved—whether it's through the neighborhood planning process, a neighborhood matching fund project, or a volunteer activity—you can help make streets that are safer, more attractive, and work for *all* of us.

Making Streets that Work follows our Comprehensive Plan's core values of economic opportunity, social equity, environmental stewardship, and building community. This workbook and accompanying video are tools that will help you and your neighbors create a stronger, more sustainable future for your community and the entire region.

Thanks again for your commitment to making Seattle an even better place to live, learn, work, and play.

Norman B. Rice

Mayor

City of Seattle

May 1996

Dear Seattle Citizen:

Streets have a vital function to provide access and mobility for people and goods. Streets also shape a community and influence the quality of life in a city. *Making Streets that Work* is a two-part educational tool (a video and workbook) that helps all of us understand how valuable our streets are as community assets. It also provides detailed information on how we can improve our streets and keep Seattle a livable city. The video illustrates examples of streets that work. Those examples represent the efforts of many individuals and organizations who have contributed to making those streets work.

Making Streets that Work is an exciting step in a true collaboration among City staff and the community. This collaboration started with a Seattle Design Commission awards program in 1994 called "Streets That Work," where over one hundred community groups and residents nominated their favorite Seattle streets. Since then, volunteer community advisors, the Pedestrian Advisory Board, Design Commission, Seattle Engineering Department, and Office of Management and Planning staff, have come together with City Council's support to create this important tool for neighborhood planning.

This workbook illustrates important characteristics of individual streets, how streets fit into the larger transportation system, and how they support diverse activities throughout Seattle. It also presents tools that can be used on individual streets and emphasizes the importance of integrating these tools into larger neighborhood planning efforts.

Making Streets that Work is designed to help all of us work through some specific aspects of transportation and urban design related to streets as we develop neighborhood plans. This workbook will enable

individuals involved in neighborhood planning to make educated and thoughtful decisions as we come together and plan for our future. Part of the challenge will be to address trade-offs, deal with limited resources, and meet varying community needs and desires. Ultimately, creating comprehensive and thorough neighborhood plans will be an outstanding achievement that will help all of us keep and improve Seattle as a vital and wonderful place to live. We hope you enjoy using this workbook as much as our staff enjoyed putting it together.

Sincerely,

John Okamoto
Director, Seattle Engineering Department

A handwritten signature in black ink, reading "John Okamoto". The signature is fluid and cursive, with the first name "John" being more prominent and the last name "Okamoto" following in a similar style.

Tom Tierney
Director, Office of Management and Planning

A handwritten signature in black ink, reading "Tom Tierney". The signature is written in a cursive style, with "Tom" and "Tierney" clearly legible.

Dennis Haskell
Chair, Seattle Design Commission

A handwritten signature in black ink, reading "Dennis Haskell". The signature is written in a cursive style, with "Dennis" and "Haskell" clearly legible.

Because your safety is our primary concern—

A primary duty and responsibility for you, your neighborhood, the Seattle Engineering Department, and the City Traffic Engineer is to ensure that streets are as safe as possible for all citizens. Additionally, the City Traffic Engineer is the only person authorized to make certain traffic revisions such as installing or removing stop signs. While community concerns must be taken into consideration, the City Traffic Engineer and the Engineering Department must always put safety first and use professional judgment when making decisions related to the design and operation of the street network. Consequently, there will be times when the Engineering Department will say “no” to requests that have popular support in the community. There will also be times when the Engineering Department will need to make traffic revisions to resolve specific safety problems, even if the changes are not popular with the community.

How to Use this Workbook

This workbook provides details and information introduced in the “Making Streets That Work” video. You may want to view (or review) the video before reading this book. The video gives examples of exciting street projects that may work for your neighborhood. The workbook picks up where the video left off and gives greater detail about streets: their components, how they function as part of a system, and then helps you focus on the streets in your neighborhood.

A lot of questions about streets are addressed in this workbook, such as: How are they working? Could they work better? What can you do to improve the quality of the streets in your neighborhood? What tools are available to help? This book is designed to help you find answers to these and other questions.

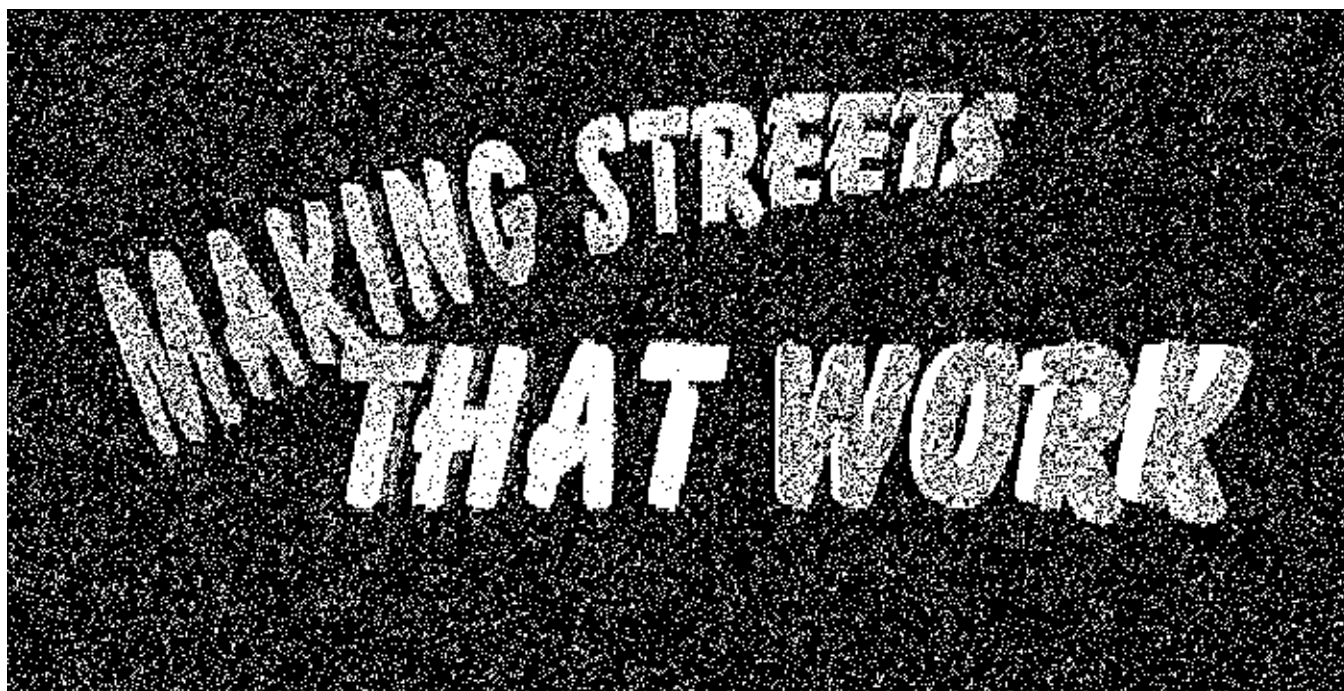
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introduction

Making Streets that Work

Seattle is one of America's most livable cities, and our streets have an important role in the livability, vitality, and character of our city. As Seattle continues to grow, we must take steps today to preserve and enhance our city's assets for future generations to enjoy. The steps we take must embody our core values of working to protect our environment, strengthening our sense of community, building a healthy economy, and ensuring that no one is left out of the process. Our state-mandated Comprehensive Plan is built on these four core values, and provides a framework for decisions as to where inevitable change will be encouraged.

Seattle's Comprehensive Plan, enacted in 1994, provides a broad policy framework that reflects King County growth management policies to discourage urban sprawl, promote more efficient use of land, and protect the region's natural resources. Our Comprehensive Plan includes a strategy for focusing the city's share of future development and growth in areas that are best equipped to accommodate it—areas that have the existing zoning capacity, services and activities, and basic infrastructure in place.

A principal part of this growth management strategy is to encourage the city's distinct and diverse neighborhoods to plan for the future. In 1995 the Neighborhood Planning Office was established to assist neighborhoods in planning, so that they continue to be vital and livable, and maintain their special neighborhood identity. Neighborhood plans will provide important detail and direction to complete the vision of the Comprehensive Plan at a community level. Through neighborhood planning, we have an

unprecedented opportunity to work together as residents, businesses, and community organizations in collaboration with the City. Neighborhood planning provides a forum to address issues of local concern while remaining consistent with the goals of the Comprehensive Plan.

A key aspect for consideration in any neighborhood plan is streets. Streets are the necessary link between neighborhoods, and also contribute to the character and quality of life in every community. This workbook is intended to help communities better understand issues, identify opportunities, and recommend changes and improvements to streets as part of the neighborhood planning process. With the accompanying videotape, “Making Streets that Work” is only one part of the Seattle neighborhood planning toolbox, which contains resources on many topics available for neighborhood planning through the Neighborhood Planning Office.

What's in this book

This workbook has been organized to “step” you through it, first introducing terms and concepts to help you to assess your street, and then providing a variety of tools and solutions. The workbook contains four chapters, as well as a resources section. You will find a wide array of information, including sketches and examples, to help you plan street improvements.

Chapter 1, What is a Street?, shows how each street is an element of a much larger network, and how each element of the street contributes to its quality and functions.

Chapter 2, The Right Tool for the Job, begins with a way for you to assess how well your street functions, based on several key characteristics. A list of common experiences then allows you to translate symptoms into possible solutions. Over fifty different “tools” that you and your neighborhood may use to improve your street are also included in this chapter.

Chapter 3, Putting it All Together, moves from ideas to action—it provides information on various city departments that you may be working with as you plan and implement street improvements.

Chapter 4, Profiles, describes streets and street improvement projects that have been completed in Seattle. All projects featured in the video, and more, are described in this section.

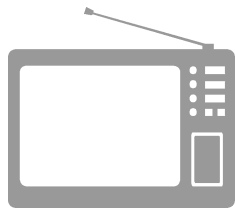
Resources provides more useful information about streets, including more tools, a glossary, reading list, and commonly asked traffic questions.



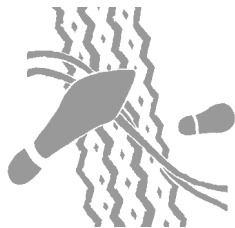
For Your Information

While reading this workbook, you will find facts on streets and the people who use them. Where appropriate, references will be made to profiles (Chapter 4), publications, videos, and other information guides.

Icons and images appear throughout this workbook, pointing you to other references, or making a specific point. Here is a key to those icons:



The television set icon shows a snapshot from the “Making Streets that Work” video.



This symbol is a reference to a profile featured in Chapter Four of this book.



This symbol suggests other sources you may want to refer to, many of which can be found in the Resources chapter.



This symbol tells you where you can go in Seattle to see an example of the tool described.

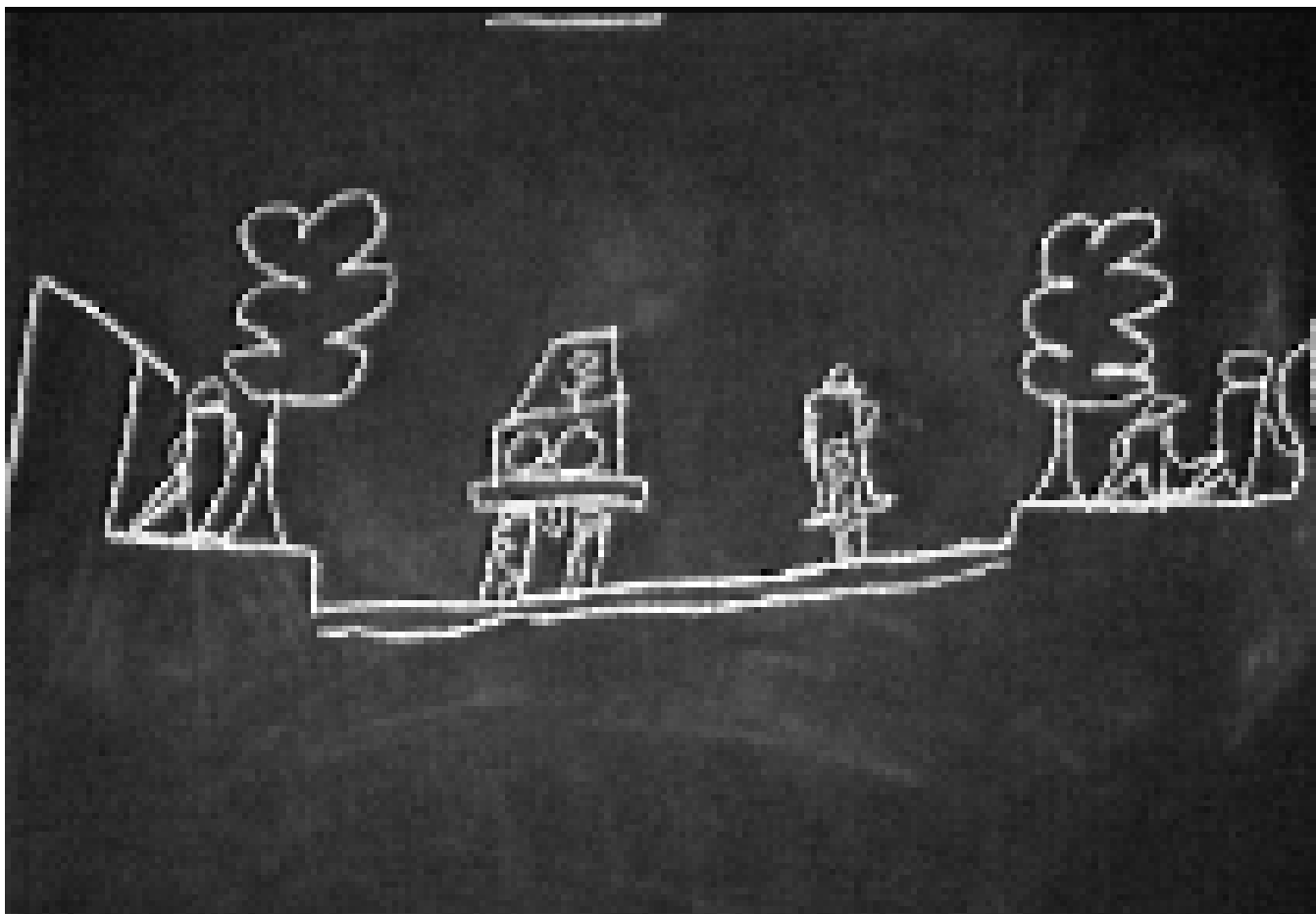


The light bulb highlights an interesting idea or fact about streets.

Any terms shown in **bold** typeface are defined in the glossary on pages 151–159 of the Resources chapter.

Please note that all information included in the workbook is current as of the time of publication (May, 1996). All costs identified are in 1996 dollars. Also note that funding sources and programs are subject to change, so please contact the appropriate agency or department to inquire about a program that you or your organization may be interested in. As part of your neighborhood planning effort, you will have to work closely with City departments and other agencies to ensure that you have up-to-date information.

chapter 1



what is a street?



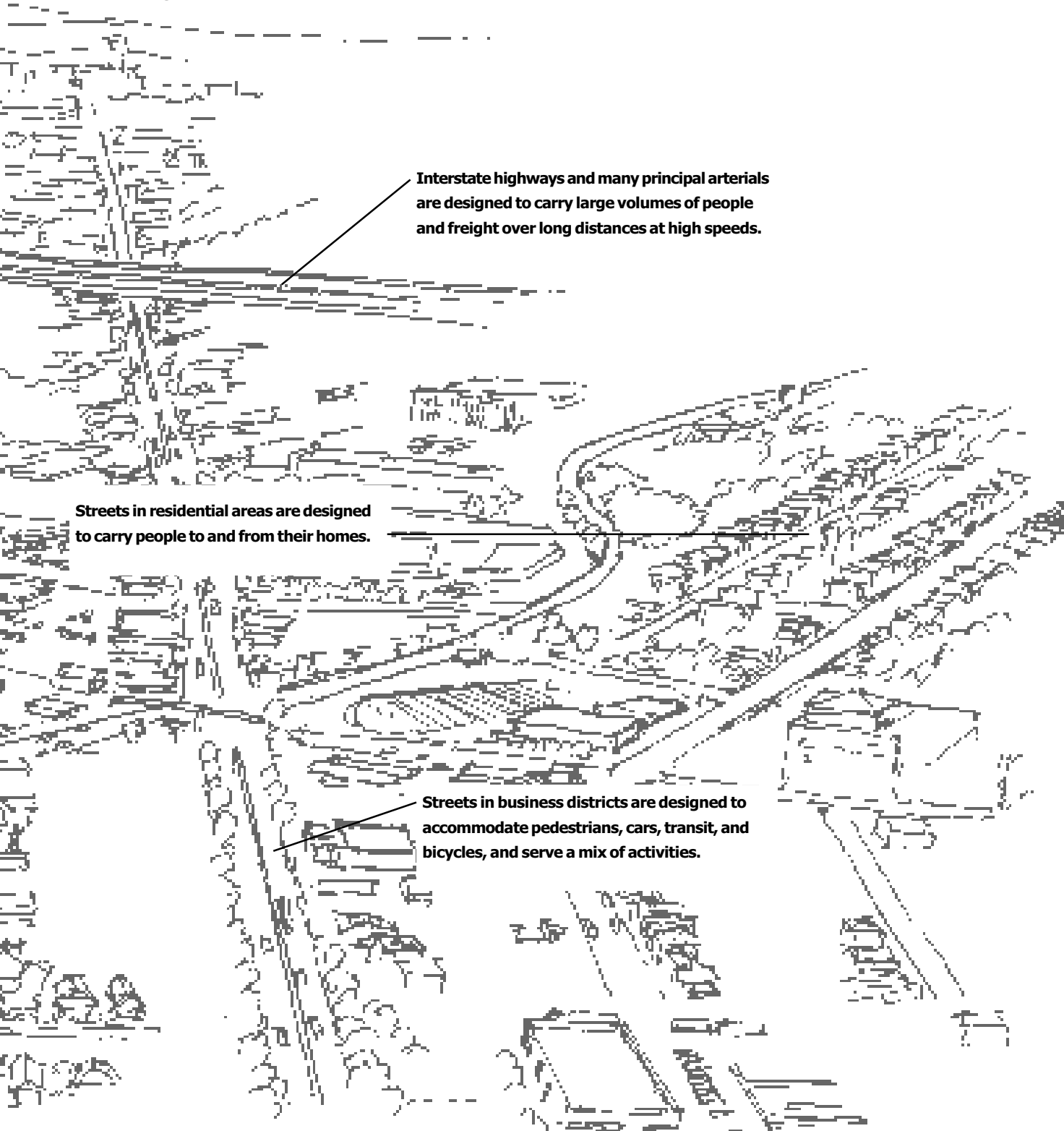
Every Street is Part of

From the narrowest alley to the largest interstate highway, all streets help us get around the region. From trucks, to cars, to bicycles, to pedestrians, Seattle's street system accommodates many modes of transportation, and connects to other modes—trains, planes, and ferries.

Each street has a different function and can be designed and operated to carry out this function as effectively as possible.

How do the streets in your neighborhood fit into the city street system?

a Regional Transportation System



Interstate highways and many principal arterials are designed to carry large volumes of people and freight over long distances at high speeds.

Streets in residential areas are designed to carry people to and from their homes.

Streets in business districts are designed to accommodate pedestrians, cars, transit, and bicycles, and serve a mix of activities.

Our Transportation Network



"It's important to make safety the primary concern, and to consider the entire transportation network of which your community is an integral part."

**Brian Patton,
Seattle Engineering Dept**

Designing and operating streets is complex because there are so many competing demands on how streets are used. People want to travel using a variety of modes. Trucks, buses, cars, feet, bicycles, wheelchairs, etc.—these are all modes of transportation that share our streets. Ferries, planes, and trains also interact with the street when they transfer passengers and cargo.

Each transportation mode places different demands on the street system and sometimes these demands conflict. For example, pedestrians may advocate **curb bulbs** to help shorten the crossing distance at an intersection, but curb bulbs are often difficult for buses or trucks to maneuver around. Wider travel lanes are necessary for trucks and buses, but wider streets can encourage automobiles to go faster, making the street less safe for pedestrians and bicyclists. Traffic often flows onto residential streets because arterials are congested, or because vehicles can travel faster on residential streets than they can on nearby arterials.

As Seattle continues to grow and develop, the limited amount of street space will not expand significantly. The street space must be carefully allocated among competing uses in accordance with the City's goals. The goals listed in the Comprehensive Plan related to the use of streets include:

- to make the best use of the city's limited street capacity, and seek to balance competing uses
- to ensure adequate street capacity for transit and other important uses
- to support a shift towards transit, carpools and vanpools, bicycling, and walking
- to support efficient freight and goods movement
- to differentiate among the various functions of city streets
- to protect neighborhood streets from through traffic.*

* City of Seattle Comprehensive Plan, Transportation Element, p. 60.

Priority networks

To balance competing uses, and to further the above stated goals, the Comprehensive Plan designated four priority networks: **principal arterials**, **major truck streets**, **urban trails**, and a **transit priority network**. These **priority networks** provide direction for neighborhood planning and many other decisions, as improvements to those streets must facilitate the priority mode. Maps of the priority networks are part of the adopted Comprehensive Plan.

Street classifications

To provide additional guidance on the design and operation of the transportation system in the City of Seattle, the Seattle Comprehensive Transportation Program (SCTP) has classified all streets in the city. There are four categories of street classifications: traffic, transit, trucks, and **boulevards**. The classifications attempt to balance often conflicting needs to provide adequate mobility while minimizing the undesirable impacts of transportation facilities on communities. The design and operational characteristics for each classification are general guidelines, not requirements. If the operation of the street does not match the characteristics of its classification, it is not required that the street's design classification be modified.

Factors considered in street classification include: travel demand, width of available right-of-way, cost of improvements necessary to ensure compatibility with future use, maintenance issues, needs for access to adjacent property, safety, preservation of neighborhood integrity, distance between arterials, adjacent land uses, and connections to the regional transportation system and major destinations. Common characteristics of the various street classifications are described in detail on page 144 of the Resources chapter.

What's important about priority networks and street classifications is that *either one* can limit the kinds of possible design or operation changes to a street. Many of the tools presented in this workbook are appropriate for use only on certain streets.



Look it up!

Street classifications and priority network maps are included in Community Profiles, available from the Neighborhood Planning Office.



**"...it's like a cycle, a bi-cycle
—so when you think street
design, think bikes!"**

**Bill Nye, The Science Guy
(with Seattle City Council
president Jim Street)**

The classifications and networks indicate priority uses for certain streets. For example, curb bulbs that impede the turning radius for trucks would be generally inappropriate on a major truck street. Likewise, **traffic calming** devices would unlikely be approved for a principal arterial.

In this workbook, we use the term **arterial streets** to include all arterial classifications, principal, minor, and collector; and **residential streets** for non-arterial Residential Access Streets. Non-arterials in commercial areas are called Commercial Access Streets. The use of nearby properties determines in which category a particular street belongs.

The arterial street system is designed to carry the majority of traffic through and around Seattle. An arterial street generally carries 1,000 to over 40,000 vehicles per day. Residential access streets are designed to provide access to and from individual homes to destinations via the arterial system and generally carry fewer than 1,500 vehicles a day. Both transit and trucks are accommodated on arterials and are generally prohibited from residential access streets, although exceptions are sometimes made for certain transit routes and local delivery. Trucks can travel on all commercial access streets.

Sharing the street

When designing improvements for your street or neighborhood, remember that your street is part of a system that must accommodate a variety of modes. For example, freight traffic moves most efficiently on wide streets with plenty of room to maneuver, especially at intersections. Buses can transport passengers the fastest when they travel on smoothly-operating arterials. Sometimes designated **HOV** or transit lanes are necessary. Drivers want to move quickly and have as much access to as many places as possible. A safe road for bicyclists is one that is wide enough to allow motor vehicles to maneuver safely without getting too close to the bicyclist. Pedestrians benefit from a clean and attractive street, as well as one that is safe and accommodating, both when walking along the street and crossing it.

Design and operation of the street system must strive to balance all of the previously mentioned demands, and your neighborhood plan must recognize these larger demands of our transportation system.

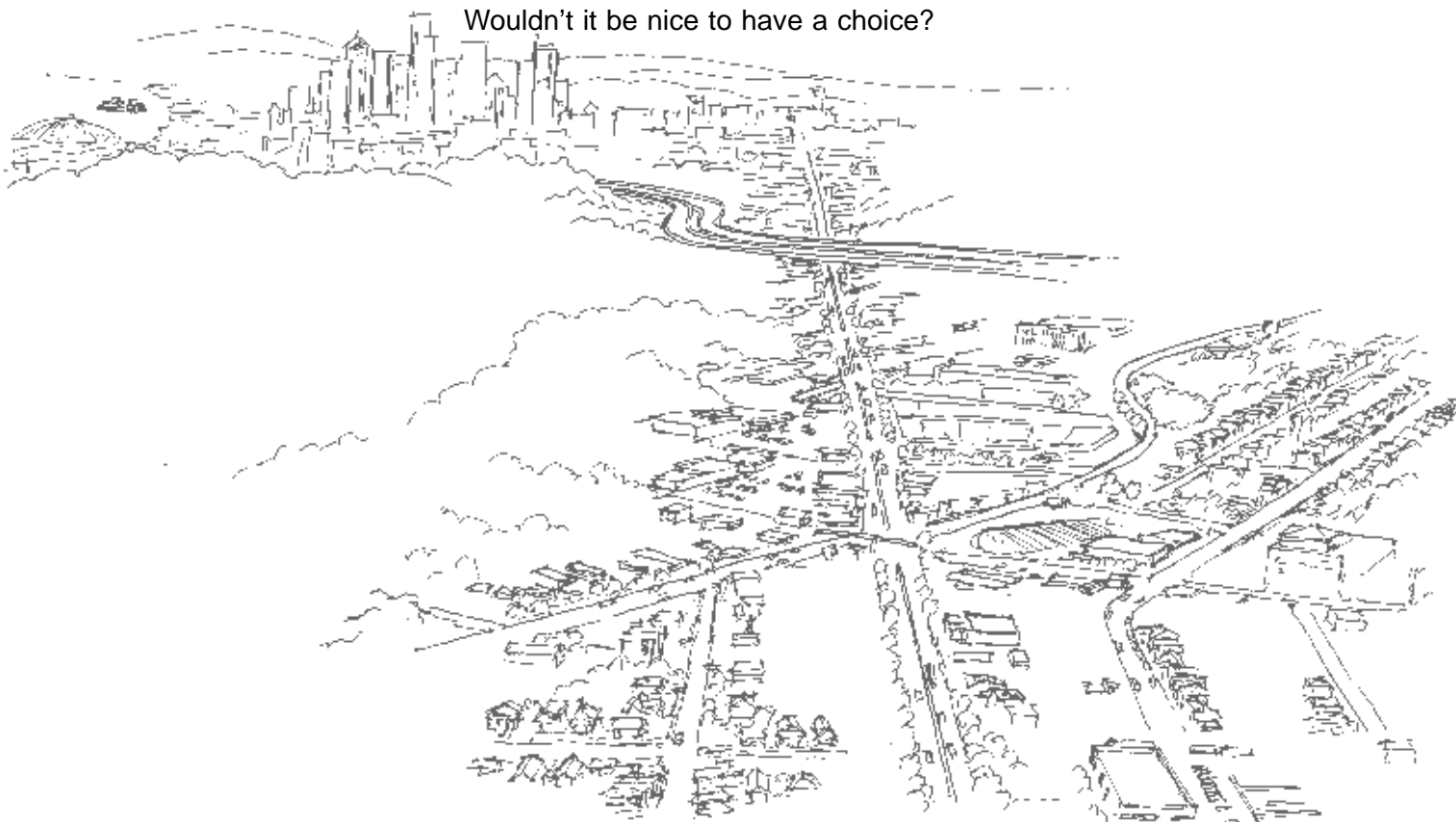
Transportation Choices and Land Use

Transportation and land use are linked. Higher density land uses make it easier and cheaper to provide transit service, and can attract pedestrian and bicycle activity. In lower density areas, the automobile is the most typical means of transportation.

Space limitations, environmental impacts, and the cost of land will not allow us to build more roads or widen them. Consequently, current levels of mobility cannot be maintained by using the same methods that we have in the past. We must examine other ways to maintain our mobility.

In planning for future growth, land use choices are the most important consideration in creating alternatives to dependence on the single-occupant motor vehicle. Higher densities make bus service more economical, and bicycling and walking real options, too. Mixing land uses provides opportunities for living, shopping, and working in the same area, reducing the need for vehicular travel.

Wouldn't it be nice to have a choice?



Streets and Urban Design

We have looked at streets as part of a larger, more complex transportation system. Similarly, the way streets work is also the result of many interactions between a street and adjacent activities, and the way a particular site's layout and design accommodate those activities.

This complex set of interactions—some of which are very site-specific and some of which are determined by economic factors—significantly affects how a street works. Identifying and understanding these factors is important as your neighborhood planning efforts focus on making streets that work. In fact, a number of land use issues and urban design choices that you consider as part of your neighborhood plan are very powerful tools for making streets that work.

The transportation and land use linkage
By their very nature, some land uses lend themselves to certain kinds of street activity and transportation choices. For example, a car wash will be a magnet for automobile access. It will also create an environment that is generally convenient for driving to and from, but not pleasant for walking by or for a bus stop. However, fast food restaurants and banks can be very auto-oriented (drive-up only), or they can accommodate a variety of transportation choices, or be completely pedestrian-dependent (like walk-up cash machines and espresso carts).

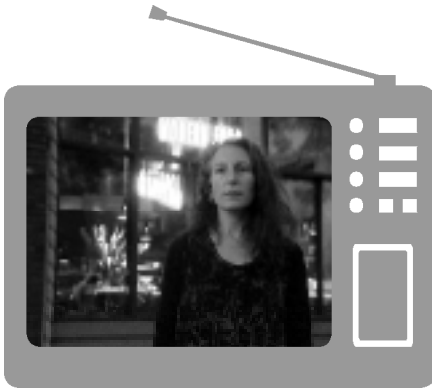
These various mixes of access (called “mode splits,” to describe the split between various modes of transportation) have important effects on the street. Consider the impacts of a busy car wash or drive-up restaurant on a neighborhood commercial street. In addition to the noise and/or smells, there may be cars crossing the sidewalk (creating safety hazards for pedestrians) or lining up on the street (blocking the flow of traffic or access to on-street parking).

On the other hand, consider the impacts of a busy sidewalk espresso cart: it will attract lots of pedestrians and bicyclists, and customers lining up may make a boisterous evening ambience. In these examples, the activities are very closely tied to the patterns of transportation choice. They affect the character of the streets on which they are located. In this regard, the City's Land Use Code is an important tool for determining what happens along our streets and how streets work.



Did you know?

Federal law requires every state and metropolitan area to have a pedestrian and bicycle plan. Read the publication “Pedestrian and Bicycle Provisions Under ISTEA,” available by calling (800) 760-6272.



**"At the Broadway Market...
the interaction between
inside and outside has made
a great difference in the
quality of community and the
neighborhood here."**

**Laurrien Gilman,
Gravity Bar owner**

Shaping the street environment

The street environment is literally shaped by the location and design of buildings adjacent to it. These are controlled by the Land Use Code. Buildings with blank faces onto the street will be unpleasant to walk along, while those that are built right up to the sidewalk and have windows, entrances, and awnings will be inviting to pedestrians. On the other hand, buildings that have signs readable at driving speeds, are separated from the sidewalk by **driveways** or open parking lots for automobiles are designed for drive-by traffic and create an automobile-oriented street environment.

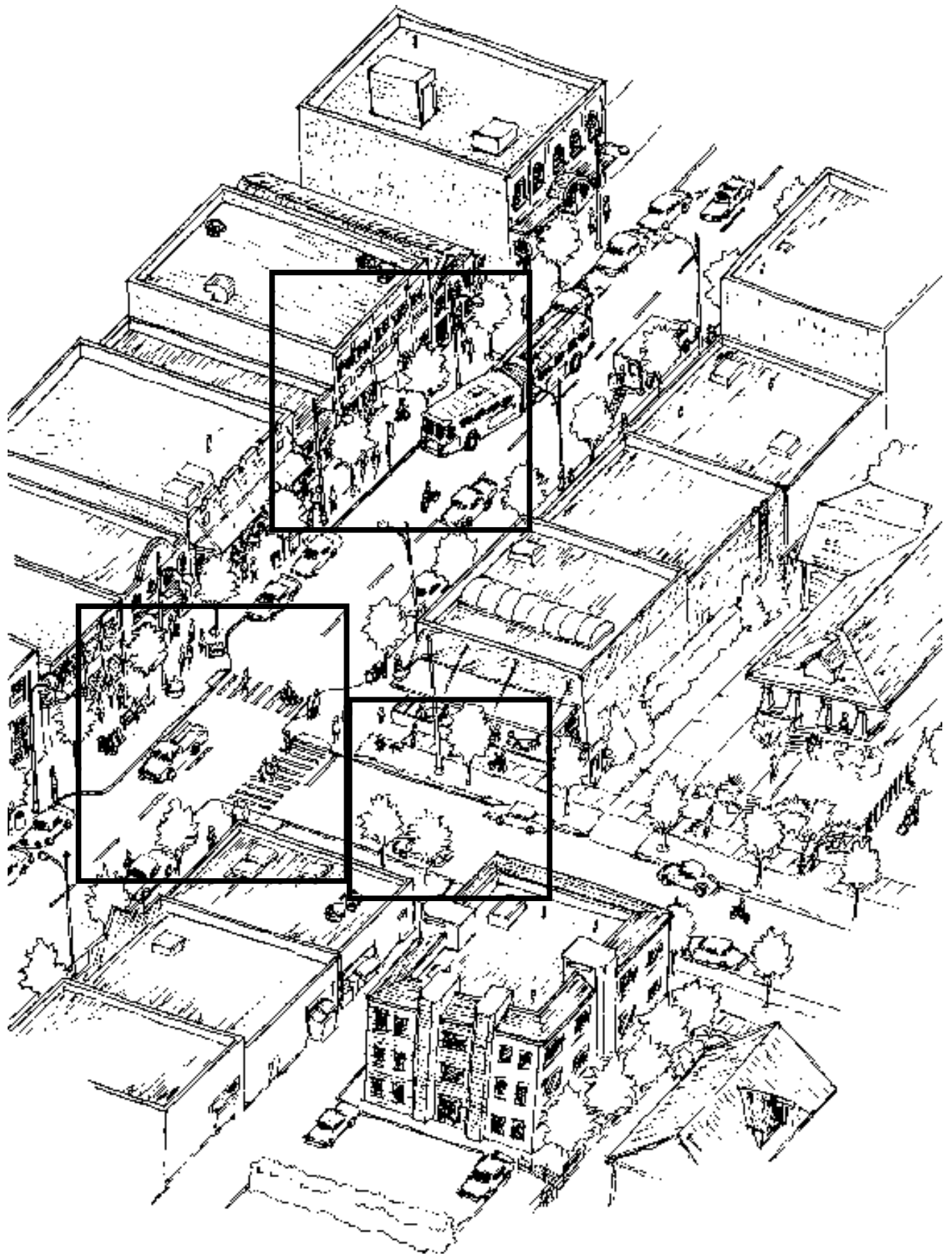
The density of residences and/or employment in an area is also an important factor in what happens on streets. Above a minimum threshold of residential density, transit service is viable. Moreover, a "critical mass" of neighborhood activity can sustain a variety of retail shops that are accessible on foot or bicycle, and can contribute to public safety through the "eyes on the street" of residents, shoppers, and visitors.

The overall activity patterns of an area are very important to understanding the roles that streets play in creating a livable city. Areas with a diverse mix of residences, shops, restaurants, and other destinations open into the evening hours will indicate the overall importance of pedestrian activity and transit service. In contrast, the streets in a quiet, low-density residential area may be best suited to accommodating local traffic and deliveries. The neighborhood planning work you do with this book will be based on these kinds of distinctions.



Look it up!

"Pedestrians and Zoning"
and "Design Review"
on page 88.

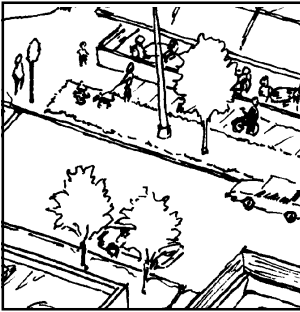


What's in a Street—the Big Picture

The anatomy of a street

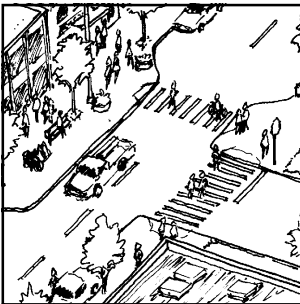
Like people, each street has an anatomy of parts, and each part has its function. **Curbs**, for example, perform many functions. They define the edge of the roadway, improve pedestrian safety by separating pedestrians from motor vehicles, and channel excess runoff water to storm drains. Street lights help increase our ability to see and be seen after dark and in doing so, increase safety. Signs orient us to our location and warn us about upcoming obstacles or changing conditions. Utilities and sewers, though out of sight, are equally important to the smooth function of streets.

But, as these pages show, there is more to a street than its parts. The following drawings demonstrate the role of streets in creating neighborhood identity, and outline the responsibilities of individuals and agencies in the care and maintenance of streets.



Taking a closer look

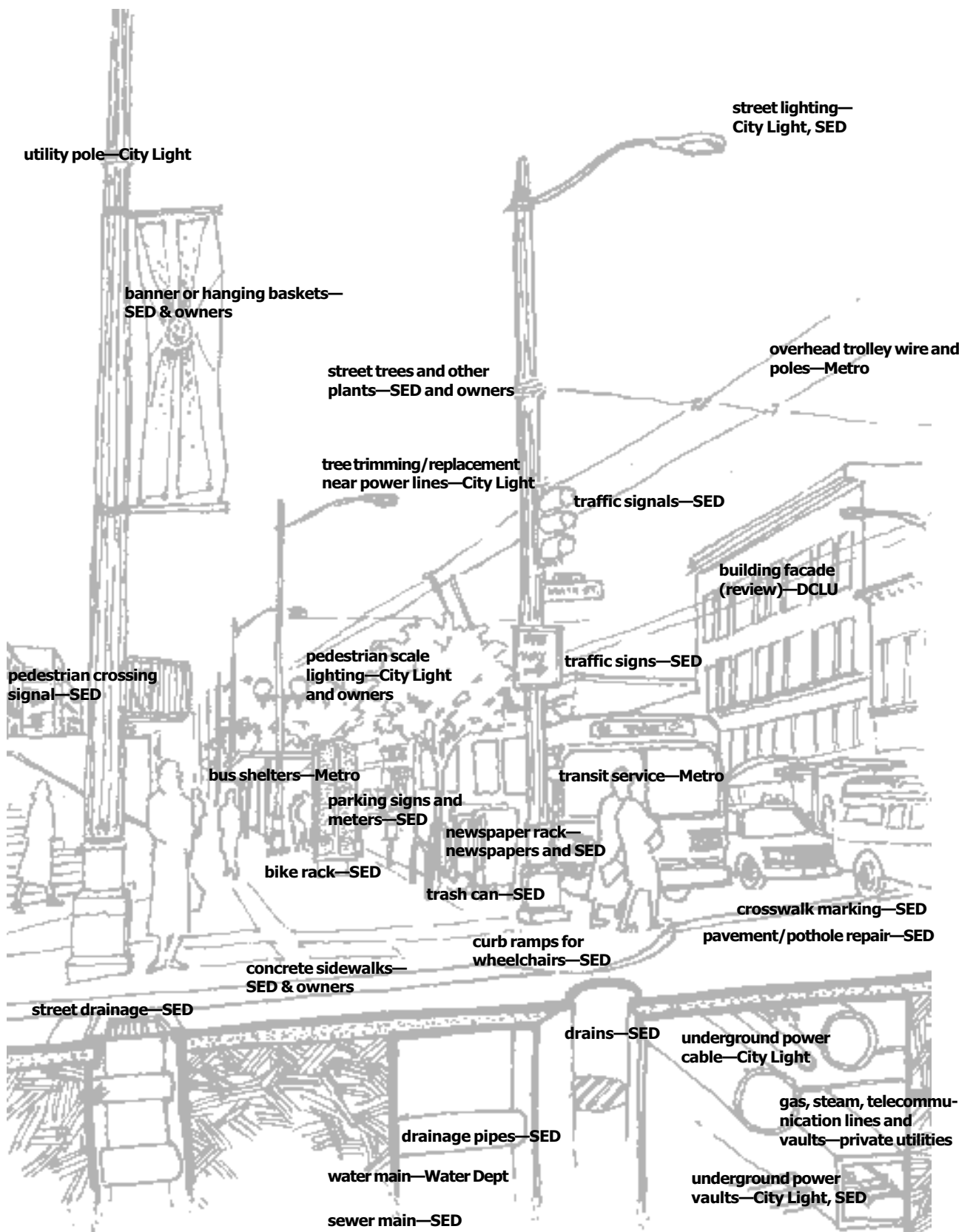
The street **right-of-way** is the term used to describe the publicly-owned area between property lines. It can include a variety of elements, such as lanes for vehicle travel, parking, bicycling, walking areas, **street furniture**, bus stops, **utility poles**, **planting strips** with landscaping and trees, and signs.



The **intersection** of two streets is often the area where drivers, pedestrians, and bicyclists meet and navigate the same space. **Traffic control devices** such as stop signs or traffic signals help define who has the right-of-way. **Crosswalks** and **curb ramps** help define the pedestrian crossing area, and make crossings easier.



Lots of activity happens on the **sidewalks** and unpaved shoulders within the street right-of-way. This drawing illustrates a street with restaurants and shops, many of which extend onto the sidewalk with cafes, signs, or awnings. **Effective sidewalk width** is the area of the walkway clear of any obstructions, street furniture, or utility poles. A sidewalk area that is 10' or 12' wide may have an effective width that is significantly narrower, due to bus stop shelters, newspaper racks, signs, and trees taking up some of the space.



Taking Care of Business

Although the elements of a street are located within the same right-of-way, the care and maintenance of all these parts of the street is not the responsibility of a single person or agency. This illustration shows the jurisdictions and private groups that are responsible for each part of the street.

As you can see, there are almost as many different agencies and private interests involved in building and repairing streets as there are streets. Any time a change is proposed to the street, each agency, private business or homeowner that is responsible for the care and maintenance of the street must be consulted. Collaboration with these other stakeholders in the street is essential, and may add to the time and effort involved in making changes to a street.

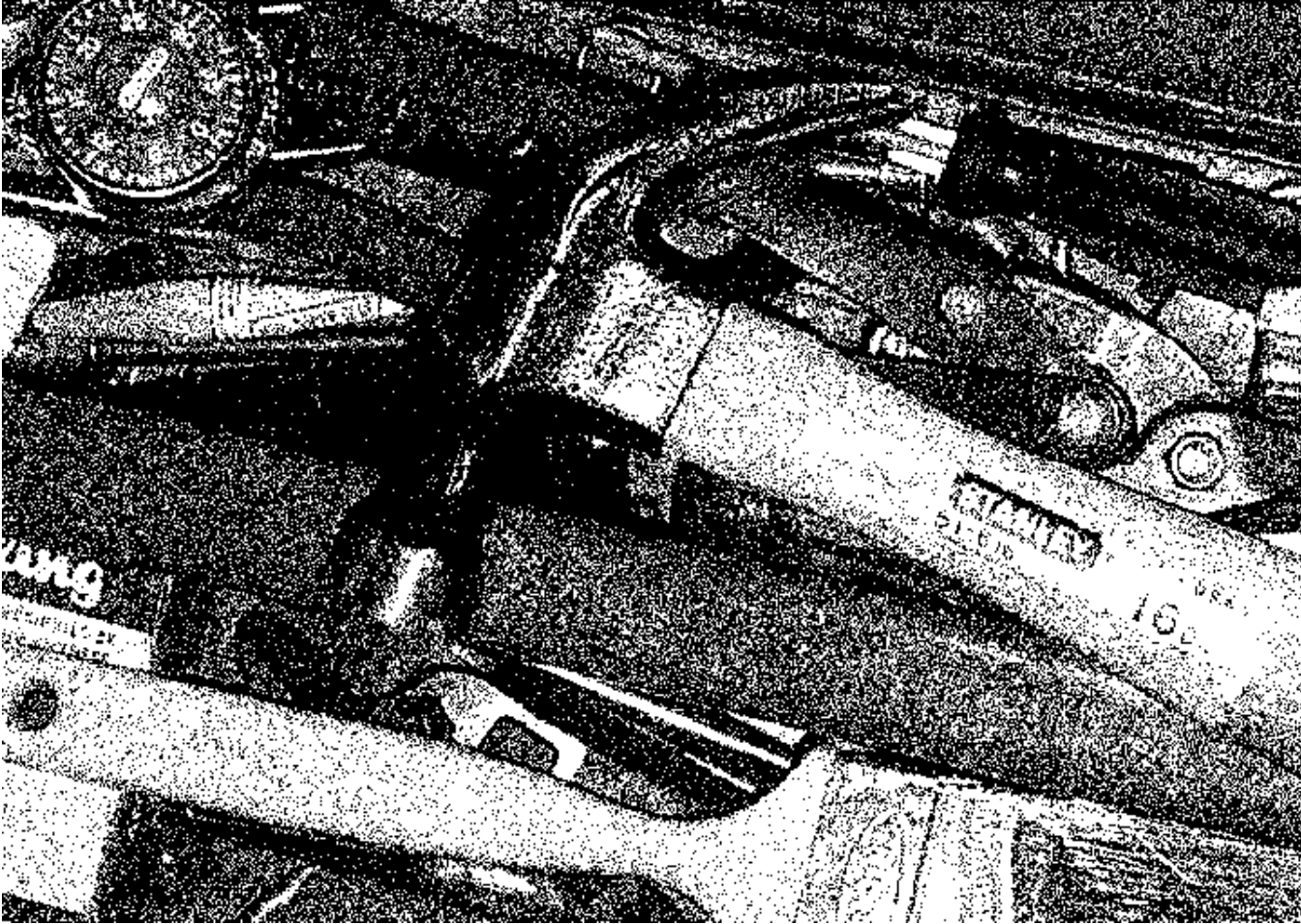
Items not pictured

asphalt walkways—SED
bridge operations—SED
bus stop trash can—Metro
design review—DCLU
driveways (permits)—DCLU
emergency vehicle routes—Fire Dept.
hazardous waste routes—US Dept of Health & Human Svces
historic district review—DON
landscaping in right-of-way—SED & property owner
overhead power lines—City Light
planting strip maintenance—owners and tenants
project review—SED, DCLU, Design Commission & owners
retaining walls—SED
sewage trunk lines—Metro
side sewer permits—SED
sidewalk cafes/awnings (permits)—SED
snow and ice removal on roadway—SED
snow and ice removal on sidewalks—owners
street design—SED
street striping—SED
street sweeping—SED
street use permits—SED
swales—SED, tenants and owners
traffic circles, traffic calming—SED
traffic control on or near interstate highways—WSDOT
traffic data collection—SED
traffic safety analysis—SED
tree grates—SED

key to abbreviations:

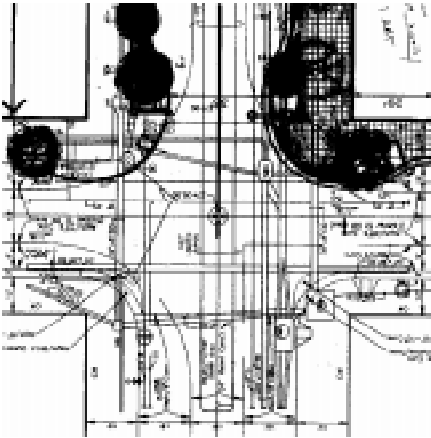
DCLU—Dept of Construction and Land Use
DON—Department of Neighborhoods
SED—Seattle Engineering Department
WSDOT—Wash. State Dept of Transportation

chapter 2



the right tool
for the job

Taking Stock of Your Neighborhood Streets



This chapter steps you through a process for assessing your street, then identifies the tools you may choose to make your street work better. The “tool kit” in this chapter describes in detail the range of physical improvements, operational changes, and planning tools available for Seattle streets.

While this workbook can be used by individuals as a reference for understanding streets, it is most effective when used as part of a larger plan involving many people. That plan can be for a single block, or the streets of an entire neighborhood; it can focus on a single issue, such as the design of the street, or cover many issues, not only the way the street system works.

Making choices about possible changes to streets is a kind of planning. Planning is systematic decision-making. It removes guesswork, provides a means of balancing divergent opinions and offers ways to set goals and measure progress toward those goals. Planning is also a cyclical process, in which ideas are tested against goals and actual conditions to find the best solutions. Neighborhood planning involves working closely with others in your community, as well as consultants and City staff.

Developing a Neighborhood Plan

Assistance in developing a neighborhood plan is available through the Neighborhood Planning Office and the Department of Neighborhoods. (More information is included on pages 96–97.) Staff at these departments can explain the planning process and help your neighborhood to obtain the services of a consultant. A consultant will help your neighborhood determine what information must be collected, and how to use the information to decide on appropriate improvements. Generally, planning goes through the following steps, often cycling through them a few times before the plan is complete.



For more info

on creating a neighborhood vision, see the Outreach Tool Set, available from the Neighborhood Planning Office.

1. **Vision: Where do we want to go?**
As you've seen and heard in the video, many different kinds of streets “work.” Streets are public spaces and are used by many different people over the course of the day for many different purposes. By working together to identify common concerns and values, you and your neighbors can define a successful street environment for your neighborhood—how the street should function, and how it should look and feel given your neighborhood's particular circumstances. This is creating a “vision.”

If you are in the midst of a neighborhood plan that covers many issues, a neighborhood vision statement will help you choose which streets to focus on when using this workbook. Since one important focus of this workbook is on the details of street design, you and your neighbors should concentrate on the few key street segments and blocks that make a real difference in the character and functioning of your neighborhood.



Look it up!

Street classifications and priority network maps are included in Community Profiles, available from the Neighborhood Planning Office.

2. **Inventory and assessment: Where are we now?**
Once you have identified and agreed on your vision for the neighborhood and its streets, finding out what's there now is the next step. For streets, there are two important components to this step—the local street environment, and a street's role in the larger transportation network. To help define their roles in the City's transportation network, every street has been assigned a street classification and some streets are part of a priority network. Your street's classification and network designation will, in part, suggest the tools that may be appropriate and the options you have.

Building a Profile

To help you understand and describe your local street environment, complete the “Building a Profile” worksheet on the following pages, and answer these questions:

What are the destinations and major activities that occur along your street, and adjacent streets? Are there supermarkets, stores, daycare centers, cafes, doctors’ offices, businesses, a park, school, library or post office nearby? How many people travel to and from these destinations daily? At what times? How do they get there—by car, foot, bicycle, bus?

Diagram your street.

Start with the basic features: the width of the street right-of-way, intersection dimensions, the number of lanes, and land uses.

Diagrams can show physical characteristics including: the width of the sidewalk and planting strip, how the lane by the curb is used for parking or loading zones, the locations of street lights, and trees.

Diagrams can also show relevant traffic information, such as traffic volumes and speeds, peak hours of travel, turning patterns, collision history, conflicts, transit, bicycle volumes, freight use, and pedestrian crossing volumes. Traffic “bottle-necks” or particularly busy intersections can be indicated.

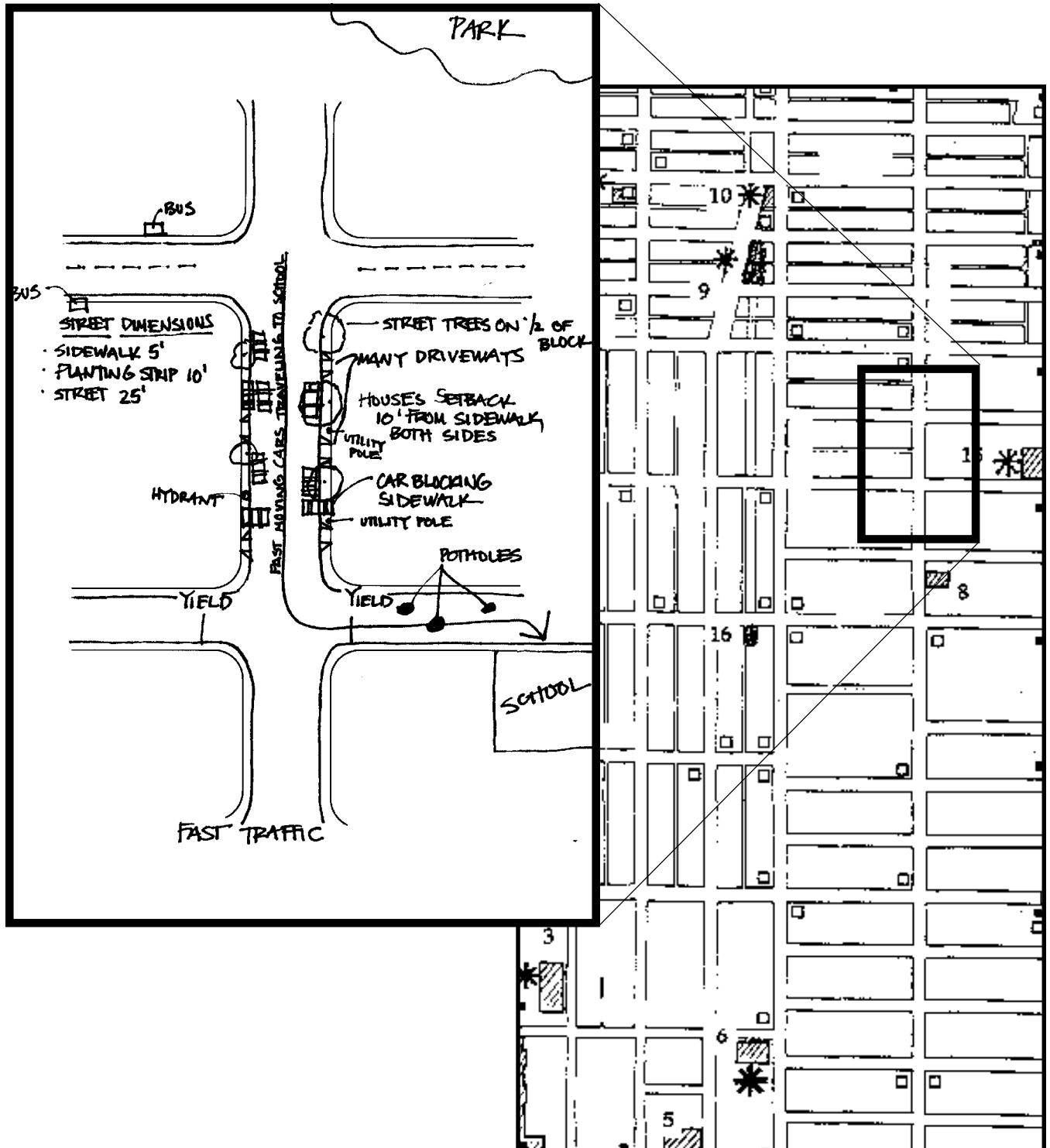
You may need several diagrams to show this information, and how your street fits into the larger neighborhood. On the following pages you will find sample diagrams.



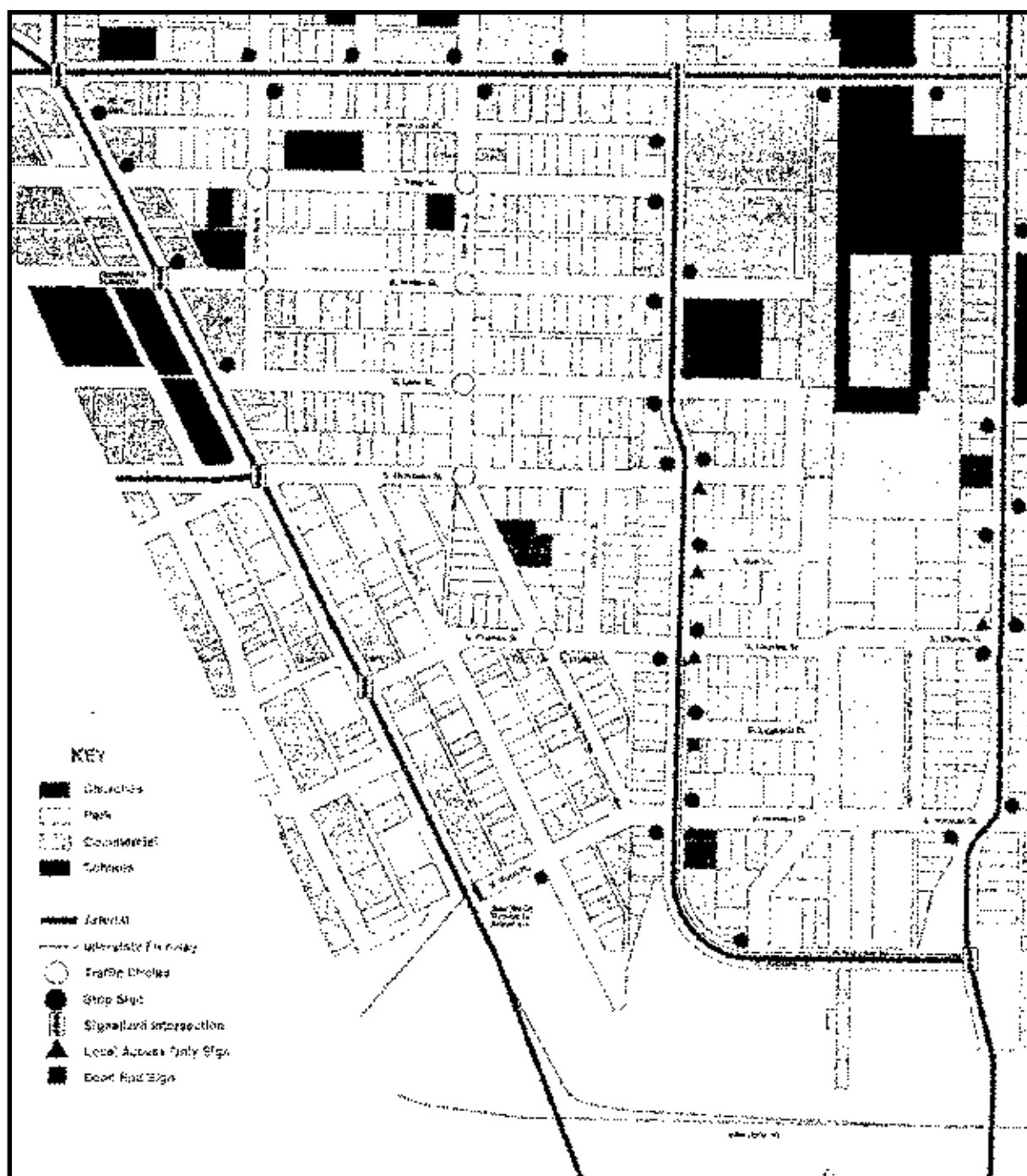
Now is the time!

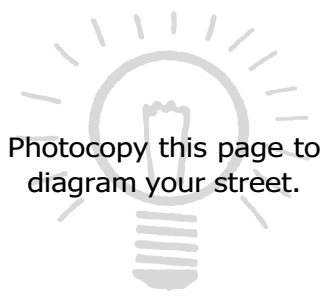
Complete the “Building a Profile” worksheet before you go any further in this workbook! The worksheet is on page 20.

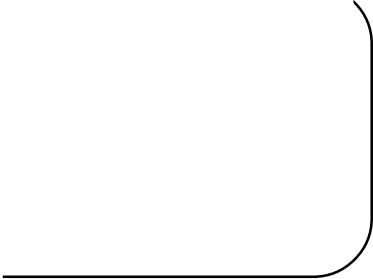


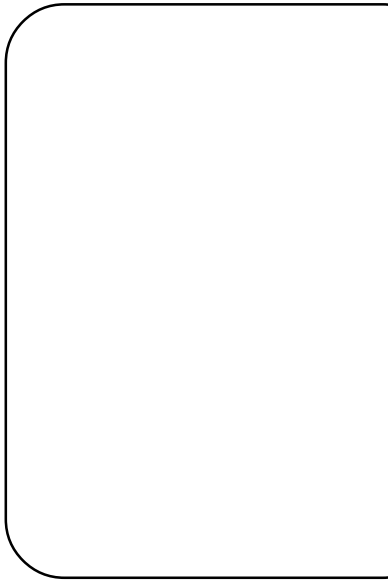
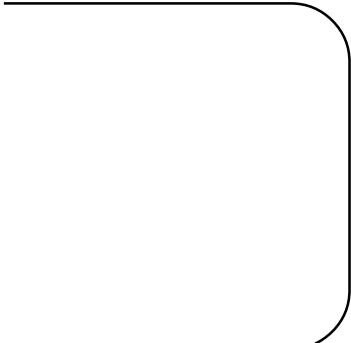
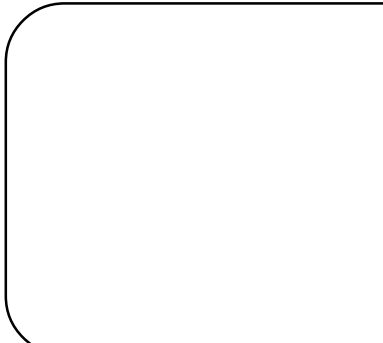
Use this sample for ideas to help you diagram your street, keeping in mind that your street is only one part of your entire neighborhood.



This is an example of a completed inventory from a neighborhood traffic plan.





After building your street's profile, you may be ready to analyze the results and identify problems and opportunities.

[illegible]

3. Making a plan

Once you've created a vision, and described and analyzed your street, you are ready to begin making a plan. Examine the tools in this chapter for how they might work on your street to help you and your neighborhood achieve your vision for the street. Each tool description includes tips about the general circumstances in which the tools would be appropriate and inappropriate. Often, however, whether a specific tool is the right tool for the job depends on the specific circumstances.

Once you've identified potential improvements, work with the Engineering Department to determine their feasibility. The City's Traffic Engineer, by state law, cannot approve any change that may decrease safety. The Traffic Engineer is also mandated to ensure the mobility of people and goods.

The tools in the tool kit can be found on streets all over Seattle. The case studies in Chapter 4 may show you streets that work as models for your neighborhood.

Streets accommodate a variety of activities. Improvements are not really improvements if they shift the problem to the next block, or make it difficult for local businesses to receive goods or customers. Test your ideas—if your proposed improvement solves a problem in your immediate area but creates a problem somewhere else, it is time to rethink your solution.

Moving Toward Solutions

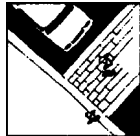
Now that you have completed the “building a profile” worksheet, you are ready for the next steps: analyzing the symptoms you are experiencing on your street, and identifying a course of action. The next two pages ask you to think about some experiences you may have had on the streets in your neighborhood. These “symptoms” are keyed to one of four solution groups. You may find that addressing one “symptom” may lead to tools from more than one solution group.



solution group 1
managing traffic



solution group 2
conditions along streets



solution group 3
pedestrian crossing conditions























solution group 4
reducing auto dependence

What are the Symptoms?


















If the symptom is...

the solution may be found in...

	managing traffic 	conditions along streets 	pedestrian crossing conditions 	reducing auto dependence 
there is too much traffic traffic volumes are high		<input type="checkbox"/>	<input type="checkbox"/>	
people drive too fast traffic speeds are high			<input type="checkbox"/>	<input type="checkbox"/>
there are many accidents collisions occur		<input type="checkbox"/>		
street character needs improvement poor aesthetics, repairs are needed			<input type="checkbox"/>	
poles and signs — too few or too many	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
it is difficult to cross the street high traffic volume and/or speed		<input type="checkbox"/>		<input type="checkbox"/>
there aren't any crosswalks	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>
difficult to cross within the "walk" light cycle		<input type="checkbox"/>		<input type="checkbox"/>

If the symptom is...

the solution may be found in...

	managing traffic 	conditions along streets 	pedestrian crossing conditions 	reducing auto dependence 
why must I push a button to cross the street?		<input type="checkbox"/>		<input type="checkbox"/>
the sidewalk network is incomplete or inadequate	<input type="checkbox"/>			<input type="checkbox"/>
sidewalks are inaccessible for wheelchair use	<input type="checkbox"/>			<input type="checkbox"/>
I must walk too close to moving traffic because of an open ditch	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
I don't feel safe walking at night	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
it's difficult to bicycle on the street		<input type="checkbox"/>	<input type="checkbox"/>	
the bus stop is inadequate a landing, seating, lighting, or a shelter is needed	<input type="checkbox"/>		<input type="checkbox"/>	
bus stops are too far apart	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

What is the Solution?

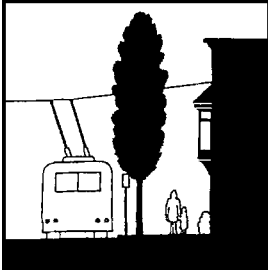
group 1 Managing traffic



Concerns about traffic speed and volume can be addressed through effective traffic management. The following tools are used to help manage traffic. Many of these tools restrict the movement of traffic on streets. In most cases the least restrictive method of solving a traffic management problem is the most cost effective, and the easiest for all to agree on.

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raised intersection (experimental)	72
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signs (stop, yield, speed limit, warning)	75
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traffic circles	81
traffic signals	82
traffic signal timing	83
two-way left turn lane	85

group 2 Conditions along streets

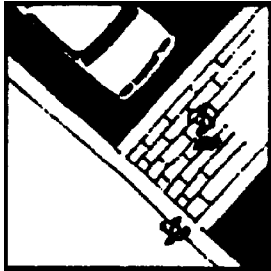


Conditions along streets affect pedestrian travel, comfort, orientation, safety, and affect the aesthetic quality of our streets. The tools in this section include lighting, street furniture, plantings and trees, and walkway improvements.

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What is the Solution?

group 3 Pedestrian crossing conditions



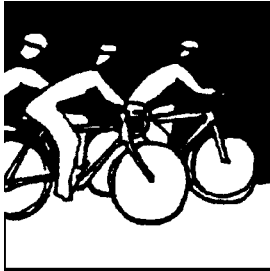
Crossing a street shouldn't be difficult, and there are tools that can help improve pedestrian safety. Tools in this group describe ways to improve pedestrian crossings.

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Safety first!

Remember that no tool can substitute for caution and awareness on the part of the pedestrian as well as the driver.

group 4 Reducing auto dependence



Some of the long-range strategies for improving streets involve reducing the need to drive a car. This involves both changes to the physical landscape as well as behavioral changes, as described in Chapter 1. The tools in this group focus on physical improvements that help to reduce automobile dependence, and improve conditions for transit users and bicyclists. This includes planning tools that help focus on improving conditions for pedestrians.

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improvements at bus stops	bus stop bulb (experimental) 39 bus zone landing pads 40 bus zone lighting 41 bus zone mural program 42 transit passenger shelters 84
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Did you know that nearly
8,000 Seattleites commute
to work or school by bicycle
every day?

Every Action has a Reaction

Each street is part of a larger system—streets connect to other streets. Improvements should not shift the problem from one street to another. What role does your street play in the larger picture?

As population and travel increase, arterials reach capacity. The primary reason traffic flows onto residential streets is due to congested arterials. Therefore, changes to slow traffic or decrease arterial volumes are not recommended unless impacts on mobility, access, and diversion have been thoroughly addressed in a neighborhood plan.

Don't shift the problem

If access is limited on a busy street, or if a residential street is closed, the traffic won't go away, it will just go somewhere else and become someone else's problem.

Examine how the improvements you are recommending affect adjacent streets and neighborhoods. If you think your neighbors will be negatively affected by a proposed street improvement, it is time to think about another solution.

Build consensus

If you have a street improvement project that you think would be of great benefit to your neighborhood, make sure to ask others in your community if they support your plan. Building consensus among your neighbors is essential. Including your neighbors now will help you later as you begin to take the steps necessary to get a street improvement approved and constructed. In many cases, the City will require that at least 60% of the people to be affected by your proposal agree to the action before it is approved. Make sure that those most directly affected by your proposed street projects are consulted.

Take responsibility

Some of your street's "problems" may be solved by working with your neighbors to care for and maintain the streets in your neighborhood. Encourage your neighbors to make sure that the planting strip and sidewalk in front of their property is clean and in good repair. Maintenance of landscaped traffic bulbs, circles, and sidewalk planters is the responsibility of the neighborhood. Share ideas about how your block can work together to improve the streets in your area. Take responsibility for making your street a "street that works."

Tool Kit

Here is an array of tools that may help you meet the goals for your streets. The tools are organized in alphabetical order, with the solution group icon(s) above the name of the tool. Each page contains a description of the tool, conditions under which it is best used, when not to use the tool, an estimate of the cost and funding options available, and a summary of the process used to implement it. In some cases you will also find a descriptive sketch, an example of where the tool has been used or installed, a reference to case studies (see Chapter 4), and other useful information.

Keep in mind that some of the tools included in this chapter are only appropriate for arterial streets in Seattle, or for residential streets. Each tool description indicates whether it is appropriate for arterial streets, residential streets, or both.

At the end of this chapter, “Tools at a Glance” lists each tool, and its uses and impacts, in a summary chart.

There are other programs available which also deal with streets. See the Resources section (pages 126–132) for more information.



Helpful hint

Want to know which tools work best to reduce traffic speeds? See the “Tools at a Glance” table, beginning on page 90.



Adopt-a-Street

works for: arterial streets
residential streets

The Seattle Solid Waste Utility sponsors the Adopt-a-Street program, which helps community organizations, other groups, and individuals “adopt” a street to keep it free of litter, debris, and graffiti. The adopting group agrees to be responsible for at least four litter clean-ups each year for at least two years, and for painting out graffiti. The City will post Adopt-a-Street signs displaying the organization’s name, and will provide gloves, litter bags, and free hauling for scheduled cleanups.

best used if

- neighborhood agrees to commit time and effort to the program.

estimated cost and funding

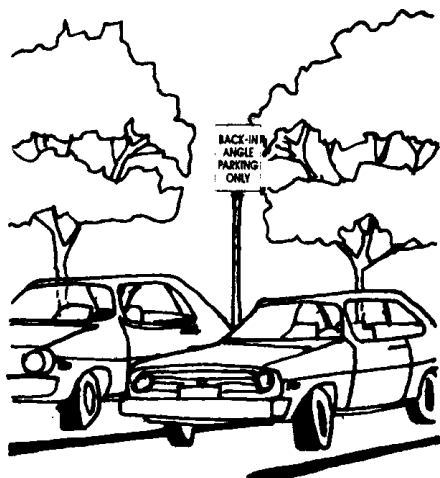
No cost to participating organizations.

note

The paint bank program can provide free paint to decorate neighborhood litter receptacles. Adopt-a-Street groups are encouraged to participate in other beautification programs, such as tree and flower planting, and bus stop mural painting.



Angle Parking



works for: arterial streets
residential streets

If streets are wide enough, angle parking increases the total number of parking spaces that can fit within a block. The number of parking spaces on the block will not increase if the installation of the angle parking requires the removal of existing parallel parking on the other side of the street. A minimum roadway width of 40 feet is used as a guideline to allow for parallel parking along one curb, one lane of traffic in each direction, and angle parking along the other curb. Very few non-arterial streets are wide enough to allow for these conditions. With the presence of angle parking, the parked cars extend further out into the street, thus reducing the travel lane width, which often results in slower speeds through the area. Back-in angle parking is preferred to head-in, as the potential for conflicts is reduced because the driver can see approaching traffic.

Check it out!

Find angled parking at the following locations:

11th Avenue between Denny Way and Pine Street; and Blanchard, Bell, and Battery Streets between 2nd and 3rd avenues.

best used if

- street is 40 feet or wider
- slower speeds are desirable.

don't use if

- street is less than 40 feet wide
- curbs must be relocated in order to obtain required width.

estimated cost and funding
\$1000 for paint and signs.

note

If angled parking is feasible, the property owners along the block must submit a petition requesting it.

For more info

See the Parking Tool, available from the Neighborhood Planning Office.



Asphalt Walkway

works for: arterial streets
residential streets

In contrast to concrete sidewalks, asphalt walkways follow the existing ground surface and do not require curbs and gutters. They can provide safe and accessible routes on streets without curbs.

best used if

- an arterial street without curbs or sidewalks has high traffic volumes and speeds
- there are nearby destinations such as schools, shopping areas, medical facilities, social service agencies, or high density housing to which people walk
- transit stops are located along the roadway with no safe pedestrian access
- the walkway would complete a missing link of sidewalk or walkway
- insufficient resources for a concrete sidewalk.

don't use if

- street has a low volume of pedestrian and vehicular traffic
- drainage ditches have to be closed to accommodate the walkway
- walkway eliminates on-street parking that is an established priority
- extensive rockery, retaining wall, or handrail required
- utilities must be relocated.

estimated cost and funding

\$30 to \$40 per foot for a five feet wide walkway. Costs include survey, design and construction and vary depending upon topography, drainage requirements and location of existing utilities. SED has funding to build approximately two miles of walkway per year. SED program funding levels change annually.

Related case study

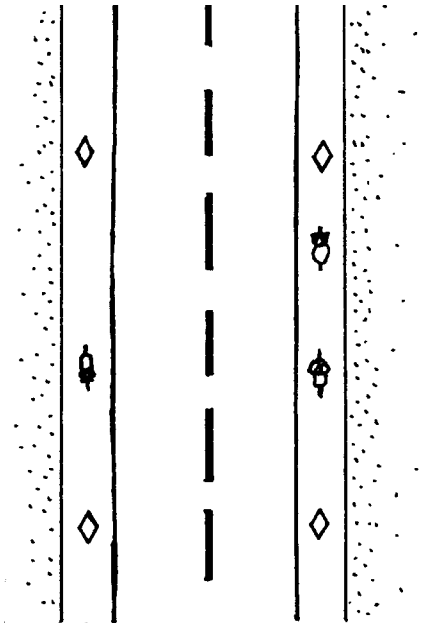
First Avenue NW asphalt walkway, page 115.

note

Neighborhoods should identify and prioritize streets that need walkways in a neighborhood plan. Alternative tools include concrete sidewalks (page 45), curbs and gutters (page 48), and landscaping options (page 58).



Bike Lanes



works for: arterial streets

A bike lane is a portion of the roadway designated for the preferential or exclusive use of bicyclists by striping, signing and/or pavement markings. Bicycle lanes provide dedicated space and increase motorist's awareness that bicyclists are welcome and encouraged on roadways. Bicycle lanes also enhance pedestrian safety if a travel lane is removed or travel lanes are narrowed to make space for the bike lane.

best used if

- street is commonly used by bicyclists
- connects existing bicycle lanes or trails, and links important bicycle destinations
- roadway is wide enough to accommodate bike lanes
- street has excess capacity, making it possible to eliminate a general traffic lane for a bike lane.

don't use if

- curb-to-curb width is insufficient to stripe bike lanes that meet recommended minimum widths
- street does not readily connect to other bicycle facilities

estimated cost and funding

\$10,000 to \$50,000 per mile depending on pavement condition and number of lane lines to be removed and painted. Approximately two miles of bike lanes are funded each year. SED program funding levels change annually.

note

Neighborhood plans may identify streets that have excess width for bicycle lane striping. Refer to the Seattle Bicycle Guide Map to see how your neighborhood streets fit into the City's bicycle network. a free map may be obtained by calling 684-7583.

For more info

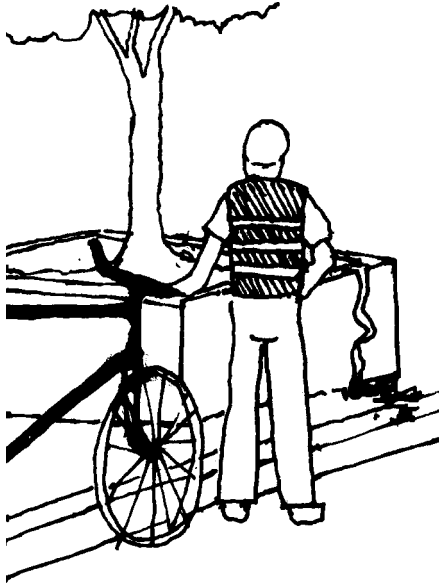
"Making Your Neighborhood Better for Bikes" is available from the Neighborhood Planning Office.

Check it out!

Bike lanes are located on Dexter Avenue N. between Mercer Street and W. Nickerson Street; and on Pine Street between 15th Avenue and Boren.



Bike Spot Program



works for: arterial streets
residential streets

The Bike Spot Program provides low cost improvements for bicycle safety, street access and trail facilities. The program includes maintenance services and small-scale construction projects, including pothole patching, street sweeping, bicycle safe drain grate replacement, sign installation and adjustments of traffic signal detectors for bicycles, railroad crossing improvements, and bicycle curb ramps.

best used if

- a significant safety concern exists
- improvement is on the City's bike map or urban trails network.

estimated cost and funding

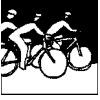
Costs vary widely, but the majority of improvements cost under \$10,000. Approximately 400 requests are received each year and about 150 improvements are made.

note

Spot improvement requests such as pothole patching and street sweeping are taken care of quickly and easily. Other requests are prioritized based on bicycle use, safety and proximity to the bikeway system. Use the "Citizen Bicycling Improvement Request Card" form, available at Neighborhood Service Centers, and from SED (call 684-7583).

Related case study

Restriping Greenwood
Avenue N., page 118



Bus Only Lanes & Transit Signal Queue Jump



works for: arterial streets

To help the speed and reliability of buses and other high occupancy vehicles (HOVs), curb lane segments on high-volume arterials can be dedicated exclusively to HOV use. A transit signal queue jump lane allows transit vehicles in the outside lane to continue through to the far side of the intersection, permitting buses to “jump” ahead of the normal flow of traffic.

best used if

- a lane exists that can be used by transit and allow the bus to get ahead of other traffic lanes
- congestion at intersections exceeds (or is forecasted to exceed) delays of one or more signal cycles
- parking can be managed to accommodate peak transit flows around congested intersections
- integrated with other transit stop design or other transit priority network projects to improve passenger access and bus flow.

don't use if

- bus volumes are low
- the street is not a transit arterial.

estimated cost and funding

Costs vary based on use and configuration of the street right-of-way. Costs may be nominal if existing conditions accommodate the change and street parking can be managed. The 1992 NE Pacific Street HOV lane in the University District (\$2.5 million for 1/2 mile) required extensive street, signal, and sidewalk upgrades to support the HOV lane.

note

Neighborhood plans and other large corridor studies can research transit corridors to assess problems. Solutions may include a series of small-scale changes to improve speed, reliability and passenger access. Study the transit priority network map in the Comprehensive Plan and Community Profiles. Work with King County Metro Transit Speed and Reliability Program, 689-3583.



A transit signal queue jump is located on N.E. Pacific Street and Montlake Boulevard.



Bus Stops

works for: arterial streets
residential streets

Bus stops (bus zones) are designated areas where fixed route Metro buses load and unload passengers. The stops typically include a sign designating which routes stop at that location, and a variety of amenities which may include a schedule holder with schedule information, a bus zone landing pad, a passenger shelter, and area lighting. A zone accommodating one bus is normally 80 to 160 feet in length; zones accommodating more than one bus are longer. Bus zones are indicated by alternating yellow and red striping along the curb, and no parking is allowed in them. Bus stops are part of a county-wide system. Bus stops are located at intervals that make access convenient, and where the physical environment matches passenger needs, as well as Metro's bus operation requirements.

best used if

- street is served by a transit route. Bus stops are chosen to maximize accessibility to area residences and businesses, as well as to accommodate the needs of people with disabilities.

don't use if

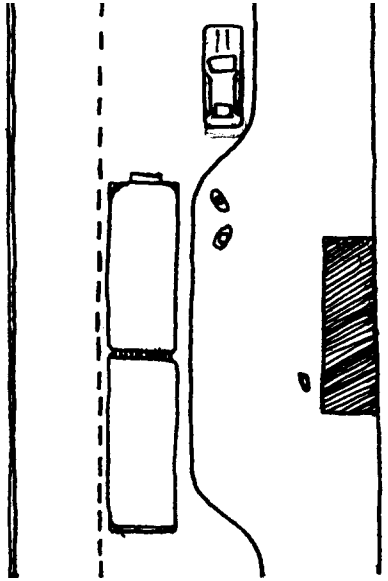
- physical constraints make for unsafe bus or passenger loading operations.

note

Locating bus stops near community services, schools, libraries, and activity centers helps to increase transportation options. If new bus stops are proposed as part of a neighborhood plan, Metro and SED will evaluate proposed locations. Contact Metro's Customer Services Department at 553-3060 for more information.



Bus Stop Bulb (experimental)



works for: arterial streets

A bus stop bulb provides access for transit riders with minimum loss of on-street parking. Buses pick up and drop off passengers while stopped in the traffic lane next to the bulb. The bulb is created by extending the sidewalk into the street. Buses loading and unloading at bulbs do not have to re-enter the flow of traffic, saving valuable time. A typical bulb is about 35 to 40 feet long, compared with the 130 feet normally required for a conventional bus stop. Conventional bus stops require a lengthy pull-in and pull-out distance that is not needed with a sidewalk bulb. The bus stop bulb provides wider sidewalk space, and more room for waiting bus passengers and street furniture.

best used

- on arterials with sidewalks and a parking lane
- if more than one lane is available for traffic in each direction
- on streets that are part of the transit priority network, or on principal, major, or minor transit streets
- to conserve on-street parking
- if buses have difficulty getting in and out of a regular bus stop due to heavy traffic, or poor street configuration
- if sidewalks are narrow and waiting bus passengers block store entrances and pedestrian traffic.

don't use if

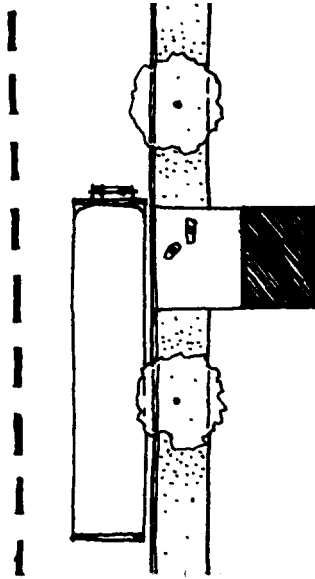
- traffic speeds on the arterial average 35 mph or higher, increasing the chances of rear-end accidents
- the bus bulb creates serious congestion problems.

estimated cost and funding

\$5,000 to \$15,000, depending on size, paving treatments and amenities. If a "stand alone" project, funding generally comes from King County Metro. If combined with a larger street or other utility improvement project, costs may be shared between Metro, SED, and adjoining property owners.



Bus Zone Landing Pads



works for: arterial streets
residential streets

Bus zone landing pads consist of a paved area between the sidewalk and the curb for bus riders to board and disembark. This surface is relatively flat (less than 2%) and, if necessary, includes retaining walls and/or railings to ensure safety. The area is also used for passengers who need to use the passenger lift to maneuver.

best used if

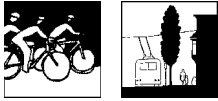
- many passengers at a stop use the passenger lift
- the stop is heavily used.

estimated cost and funding

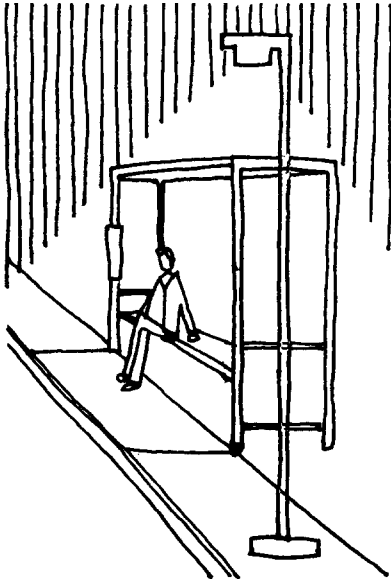
Funded by King County Metro, costs range from \$1,000 to \$5,000 depending on the location.

note

Typically Metro and SED work together to improve bus zones in conjunction with the construction of curb ramps and pathways. Funding is prioritized based on access to social service locations, ridership, and customer requests.



Bus Zone Lighting



works for: arterial streets
residential streets

Additional lighting at bus zones is installed to increase bus passenger and operator safety.

best used if

- location is on a high frequency bus route with all day and evening service
- street lighting exists in the area
- location has a high number of transit riders
- location has been identified as a site of illegal activity.

don't use if

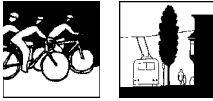
- additional light will adversely affect adjacent residents.

estimated cost and funding

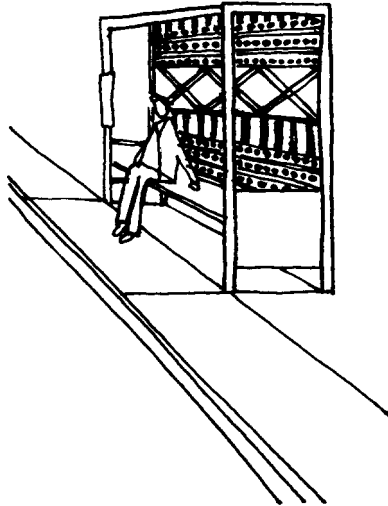
Costs vary from a few hundred dollars to a few thousand, depending on whether an existing pole can be used or if a new one must be installed. Funding is available from Metro as part of its Bus Zone Lighting Improvement Program, and locations are prioritized based on requests and other criteria.

note

Neighborhood plans can identify bus zones that would benefit from additional lighting. Improvements are typically made in conjunction with other street and pedestrian lighting improvements. King County Metro and SED work together to process requests.



Bus Zone Mural Program



works for: arterial streets
residential streets

The Bus Zone Mural Program involves youth and other members of the community in designing and painting bus shelter murals. The primary objectives of the program are to improve the appearance of bus shelters, foster pride in the community, and cultivate school and community partnerships.

best used if

- there is an existing bus shelter
- an organized artist group is in the neighborhood
- a local artist group leads the project.

don't use if

- existing shelter has all glass panels.

estimated cost and funding

King County Metro contributes materials and supplies, and community members donate their artistic talent and labor. In some instances, a community may want to commission an artist to prepare the mural panels. These costs are then funded entirely by the community. Occasionally King County Metro has paid for commissions, and artists compete for these opportunities.

note

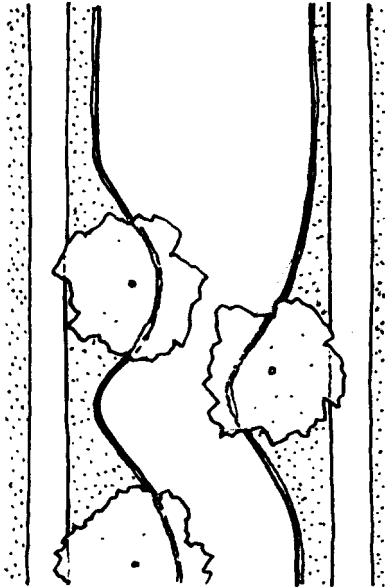
Metro works with the artist group to develop a mural design, select a location, coordinate the logistics of picking up and returning the mural panels, and the installation.



Bus zone murals are located on Rainier Avenue, on Broadway, and throughout the city.



Chicanes



works for: residential streets

Chicanes are usually a set of three landscaped curb bulbs that extend out into the street. Chicanes narrow the road to one lane and force motorists to decrease vehicle speed in order to maneuver between them.

best used if

- speeding problems exist (traffic moves at greater than 35 mph)
- neighborhood consensus favors constructing chicanes to reduce traffic speed and volume.

don't use if

- traffic will be diverted onto other non-arterial streets
- chicanes will block driveways (driveways are located less than 20 feet apart)
- travel lane is already one car lane width
- high demand for on-street parking
- street is a major emergency or bus route.

estimated cost and funding

\$8,000 for landscaped chicanes on an asphalt street, \$14,000 for landscaped chicanes on a concrete street. There is no dedicated funding program for chicanes. If SED approves the chicanes, neighbors are encouraged to apply for funding through the Department of Neighborhoods Matching Fund program (see page 96).

note

Approval must be obtained through a petition signed by the immediate adjacent property owners and 60% of neighbors on streets affected by the proposed chicane.

Related case study

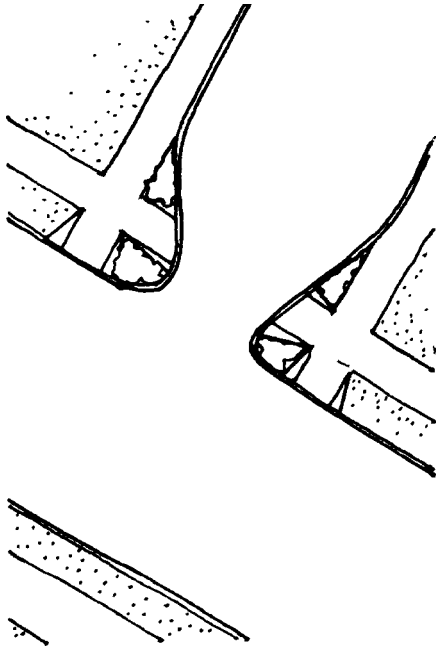
Phinney Ridge chicanes,
page 112

Check it out!

Chicanes are located in
Columbia City at 42nd
Avenue S. south of
Genesee Street.



Choker



works for: residential streets

A choker is a set of two curb bulbs that extend out into the street. A choker narrows the road, sometimes down to one lane, and causes motorists to slow when entering and exiting the street.

best used if

- high level of cut-through traffic
- a transition is needed from a commercial area to a residential area
- speeding problems exist (many vehicles travel over 35 mph)
- neighborhood consensus favors chokers
- street is wider than 25 feet.

don't use if

- traffic will be diverted onto other streets
- travel lane is already one car lane width
- high demand for on-street parking
- choker will affect access from or to an adjacent arterial.

estimated cost and funding

\$7,000 for a choker on an asphalt street, \$13,000 for a landscaped choker on a concrete street. There is no dedicated funding program for chokers. If SED approves the choker, neighbors are encouraged to apply for funding from the Neighborhood Matching Fund program (see page 96).

note

Neighborhood approval must be obtained through a petition signed by 60% of neighbors, and 100% of abutting property owners who may be affected by the project.

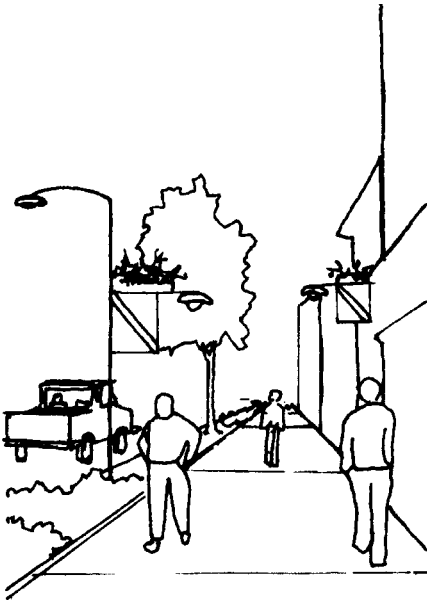


Check it out!

Chokers have been installed at 26th Avenue N.W. and N.W. 59th Street in Ballard.



Concrete Sidewalks



works for: arterial streets
residential streets

Concrete sidewalks are located adjacent to a curb or separated from the curb by a planting strip. Typically, they are five feet wide on residential streets, and can be ten feet wide or wider on arterial streets or in special districts. The planting strip must be at least five feet wide in order to plant trees. Typically, sidewalks are built in association with private real estate development. SED is responsible for construction or reconstruction of sidewalks, curbs, and gutters on arterial streets.

note

Certain conditions must be in place—curbs, drainage, and proper location of utilities. Because of their high cost and lack of a direct funding source, sidewalks are only funded through development or redevelopment, or through Local Improvement Districts (see page 127). Lower cost alternatives to concrete sidewalks include asphalt walkways (page 34), and landscaping options (page 58).



Consolidate Utilities

works for: arterial streets
residential streets

Many sidewalks are cluttered with a variety of street furniture, utility poles, and sign posts. This unnecessary crowding of valuable pedestrian space is often the unintentional result of many different decisions and projects that have been designed and installed independently (see “Taking Care of Business” on pages 12–13). Consolidating utilities usually means putting everything on one pole. In some cases, it could also mean using existing underground vaults more efficiently. With cooperation, coordination, and commitment, various public entities, private utilities, and community interests can become partners in improving our street environments. The benefits of consolidated utilities, street furniture, and other important pieces of the streetscape are many: making the most of limited sidewalk space, reducing “visual clutter,” developing a distinctive character for an area, and demonstrating wise investments of taxpayer dollars.

best used

- where a community is aware of upcoming infrastructure projects that are opportunities for consolidation
- if neighborhood plan has identified priority streetscape areas that coincide with infrastructure or other utility projects.

estimated cost and funding

Costs vary, but mostly involve a commitment to up-front design and review coordination. Project coordination does not necessarily lead to increased project costs.

note

Consult early with project managers from various utilities, and encourage all players to consult with the Seattle Design Commission to ensure project coordination.



Culverting



A culvert consists of a storm drain pipe installed below grade to carry stormwater beneath driveways and road crossings.

best used if

- an open ditch exists, and is frequently crossed
- parking, landscaping, or sidewalk improvements require culverting.

don't use if

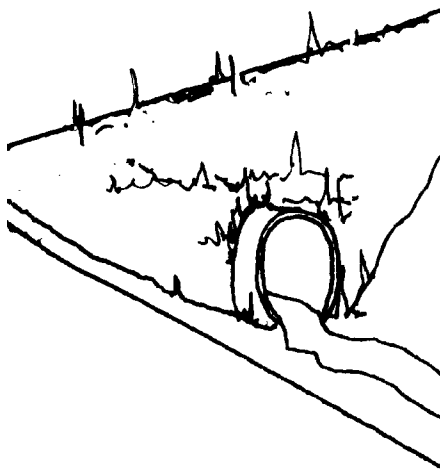
- storm water flow is great enough to require an engineered drainage system.

estimated cost and funding

Costs vary greatly based on size, type of material, depth, and utility placement. Costs are borne completely by property owners.

note

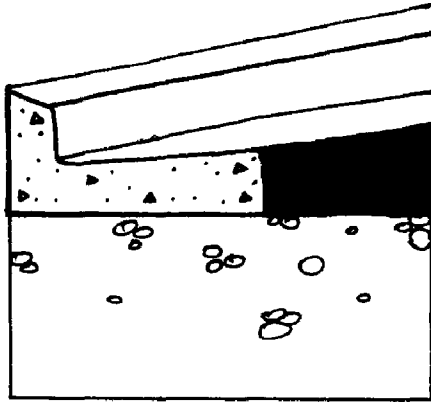
For alternative drainage tools, see curbs and gutters (page 48) and grassed swales (page 55).



works for: arterial streets
residential streets



Curbs and Gutters



works for: arterial streets
residential streets

The curb is a raised physical barrier between the roadway and sidewalk, walkway, or planting strip. It separates vehicles and pedestrians, and controls roadway drainage.

best used if

- there is a need to provide grade separation
- there is a need to control roadway drainage
- the parking lane needs a defined edge to keep parked vehicles off the sidewalk.

don't use if

- the gutter cannot be connected to a drainage system.

estimated cost and funding

\$20 to \$30 per linear foot to survey, design and construct curbs and gutters. This does not include any costs associated with providing a storm water drainage system or any paving of the road or planting strip. SED does not have a dedicated funding program for curbs and gutters; they are typically built in conjunction with other roadway or utility projects.

note

Neighborhoods should identify and prioritize streets requiring curbs and gutters in a neighborhood plan. Curb and gutter work may be considered with roadway and other related utility projects. For alternative drainage tools, see culverting (page 47) and grassed swales (page 55).

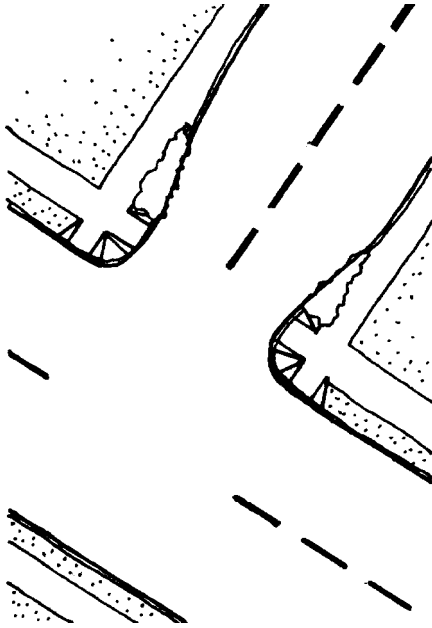
Did you know?

Drainage swales are considered more environmentally friendly than curbs and gutters because run-off can infiltrate naturally into the earth.

See grassed swales tool on page 55.



Curb Bulbs



works for: arterial streets
residential streets

Curb bulbs extend the sidewalk into the street. The bulbs, which may be landscaped, improve pedestrian crossings by providing better visibility between pedestrians and motorists, shortening the crossing distance, and reducing the time that pedestrians are in the street. Curb bulbs located at the intersection also prevent people from parking in a crosswalk or blocking a curb ramp. Curb bulbs may encourage motorists to drive more slowly by restricting turning speeds and narrowing the roadway.

best used if

- the intersection is used by many pedestrians
- the curb lane is a permanent, 24-hour parking lane
- a documented pedestrian/vehicle conflict exists involving turning vehicles.

don't use if

- curb lane is used as a travel lane, including lanes that are used for transit, or that have peak hour “no parking” signs
- right or left turn lanes are needed at an intersection
- large curb radii are required due to transit and truck turns
- extremely heavy parking demand (construction of a curb bulb may result in the loss of a parking space).

estimated cost and funding

\$10,000 to \$20,000 per bulb. Costs vary depending upon site conditions and design. SED funding exists for 10 to 20 curb bulbs per year. SED program funding levels change annually. Curb bulbs are prioritized based on pedestrian use and benefit.

note

Neighborhood plans should identify intersections that have high pedestrian use and could benefit from a curb bulb. If an intersection does not qualify for SED funds, the neighborhood could pursue the curb bulb through DON Matching Funds (see page 96).

Check it out!

See curb bulbs on Market Street in Ballard, and at 12th Avenue E. and Denny Way on Capitol Hill.

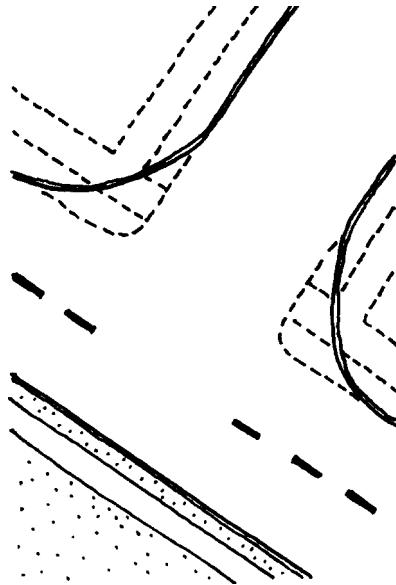
Related case studies

20th and Lane curb bulbs, page 116

Second Avenue—Belltown, page 106



Curb Radius Reduction



works for: arterial streets
residential streets

The reduction of an existing curb radius at an intersection can slow motorists who do not stop completely to execute a turn. The current design standard for an arterial street curb radius is 25 feet—if a large number of trucks or buses turn at a corner, the standard is 30 feet. The residential street curb radius standard is 20 feet. A reduced radius shortens the pedestrian crossing distance, improves visibility between pedestrians and motorists, reduces the speed at which motorists can turn, and may add parking spaces to the street.

best used if

- there is a lot of pedestrian activity
- the existing curb radius is larger than required by design standards
- streets do not intersect at a right angle resulting in a long crossing distance for pedestrians
- there is a high pedestrian/automobile accident rate involving turning vehicles
- curb radius revision is supported by neighbors.

don't use if

- unusual circumstances require a large radius, such as truck traffic or a transit turnaround
- it would not result in a significant improvement
- the adjacent property owners are not supportive, and there is not an overriding safety concern.

estimated cost and funding

\$10,000 to \$20,000 per corner. Costs vary depending on site conditions and design. Drainage, landscaping, driveways, and size of improvement may add to the cost. Funding exists for a limited number of radius revisions per year. SED program funding levels change annually. Radius revisions are prioritized based on pedestrian use and risk.

Related case study

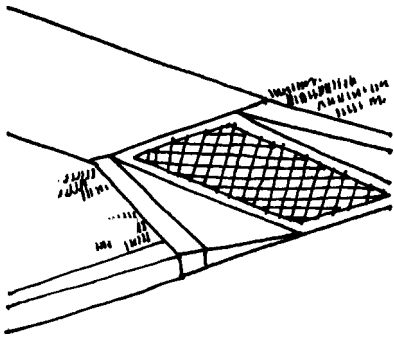
Harvard Avenue & E. Roy Street, page 105

note

In a neighborhood plan, identify and prioritize intersection corners with high pedestrian use and large radii. Funding may be available through SED, coordinated with utility work at those locations, or the Department of Neighborhoods Neighborhood Matching Fund. Landscape maintenance may require commitment from adjacent property owners.



Curb Ramps



works for: arterial streets
residential streets

Curb ramps provide a gradual transition between the sidewalk and roadway height. Curb ramps provide access for wheel-chairs, walkers, strollers, and hand carts, and are installed at intersections and mid-block crossings.

best used if

- curb ramps provide access to transit zones, social service agencies, medical facilities, employment locations, retail areas, schools and residences on arterial streets
- on any residential street, curb ramps should be located within two blocks of an arterial served by transit.

estimated cost and funding

\$1,500 per curb ramp. SED builds approximately 350 curb ramps per year. SED program funding levels change annually. Requests beyond available funding are prioritized based on **ADA** requirements and access to transit zones or social service agencies. Any new private development, street or utility project that affects a mobility path must construct curb ramps if they are feasible.

note

A neighborhood plan should identify priority areas where curb ramps are needed. Special attention should be paid to business districts and areas frequented by users with special mobility needs (such as playgrounds, senior housing, and daycare centers).



District Identification Signs



works for: arterial streets
residential streets

District identification signs and other non-traffic signs that welcome visitors to a community are helpful in establishing community identity. They are usually three feet by two feet, with white lettering on a green background. Logos can be on the sign and can be a different color than white. The logo, however, cannot appear to be an advertisement for a specific group or organization. Signs directing traffic to the district can also be installed.

best used if

- the community would like to identify a neighborhood or business district
- the neighborhood would like to enhance community identity.

estimated cost and funding

Approximately \$150 per sign installation.

note

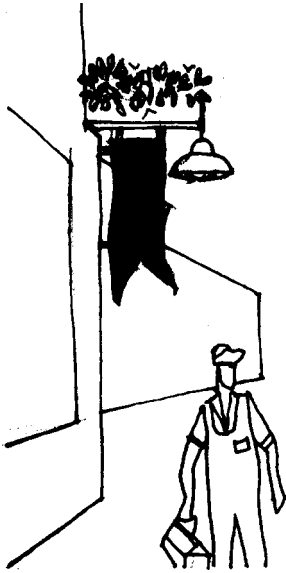
In neighborhood planning, communities should design their signs and identify appropriate locations to welcome visitors. Once the community has decided upon a preliminary design and general placement of the signs, they can contact SED, who will review the signs and discuss possible locations. District identification signs are often funded through the Department of Neighborhoods Matching Fund Program (see page 96).



District identification signs are located at, among other places, the Roosevelt Community (on N.E. 65th Street near Roosevelt Way) and the Maple Leaf Community at 5th Avenue N. at 85th Street.



Flower Planters and Banners



works for: arterial streets

Flower planters are a delightful way to show off a business district during warmer months. The use of district-wide “cross-street” or “pole” banners are an effective way to advertise upcoming events or to identify an area.

best used if

- community wishes to add attractive detail to the street
- community would like to create a visual link throughout entire business district
- community would like to promote an area or special event
- neighborhood consensus favors a consistent planter or banner program.

don't use if

- community does not want to maintain the planters
- **effective sidewalk width** is less than five feet.

estimated cost and funding

A street use permit is required, and costs \$60 per year. The permit must be updated annually. Liability insurance in the amount of \$1,000,000 is required for planter boxes, with the City listed as additionally insured.

note

Planters at ground level may extend up to two feet from the building but may not obstruct the sidewalk or pose a hazard to people with disabilities. Baskets hanging from a building wall must be securely mounted and located well above pedestrian pathways, as must “pole” banners which should be located on metal street light poles. Cross-street banners must be strung between buildings, with non-metallic wire, and should be five feet above bus trolley lines.

As part of their neighborhood plan, interested groups should submit detailed drawings to SED to obtain a street use permit for a planter or banner program. Drawings should show type of material used for the containers and the type of bracket and fasteners for banners.

For more info

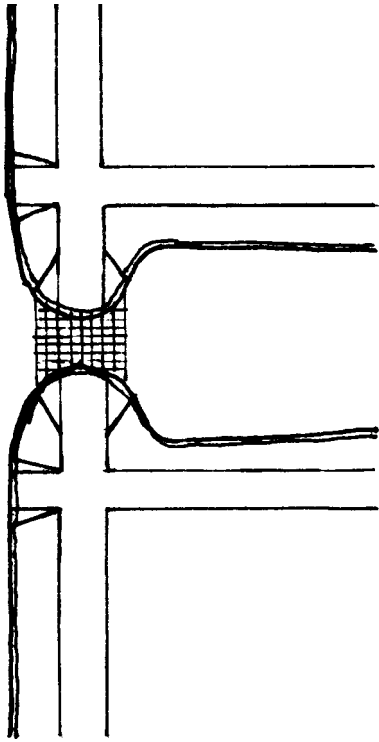
See the Neighborhood Business Council's “Guide to Improvement Projects for Seattle Business Districts” for information on improving business streets.

Check it out!

For a look at planters and banners, visit First Avenue in Pioneer Square. Broadway merchants also display seasonal banners.



Full Street Closure



works for: residential streets

A full closure is a physical barrier that closes the street to motor vehicles. Usually landscaped, a full closure can be built to accommodate pedestrians, bicycles and wheelchairs.

best used if

- street is used as a cut-through route
- a less restrictive device cannot address concerns
- there is a desire to create a pedestrian place.

don't use if

- closure interferes with emergency vehicle or school bus access
- cut-through traffic may be diverted onto other local streets
- no appropriate alternative street exists
- conflicts with other neighborhood priorities, such as increasing access on neighborhood streets
- a turnaround cannot be provided at the street closure.

estimated cost and funding

\$30,000 to \$100,000 for a landscaped street closure. There may be less expensive ways to close the street. SED does not have a dedicated funding program for full closures.

note

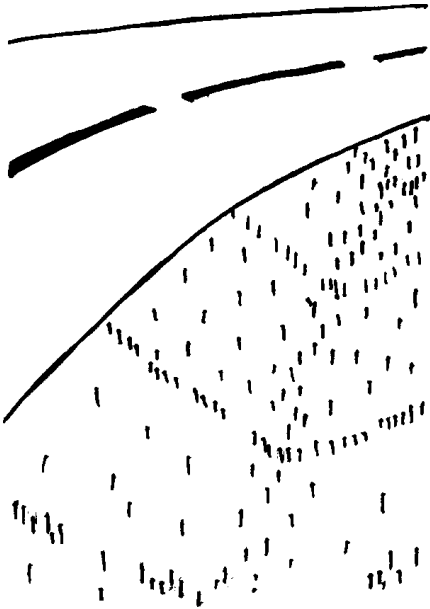
Though full closures may be proposed through the neighborhood planning process, they are rarely implemented. Neighborhood approval must be obtained through a petition signed by 60% of the residents on each block that may be affected.

Check it out!

Full street closures have been built at: 26th Avenue N.W. and N.W. 60th Street, at 46th Avenue S. and South Morgan Street. Find a landscaped full street closure at 16th Avenue E. and E. Mercer Street on Capitol Hill.



Grassed Swales



works for: arterial streets
residential streets

A grassed swale is a shallow vegetated channel. Grass, wildflowers, or perennials grow in the swale, treating the runoff as it passes through the channel by catching sediments. This treatment is believed by many to be the most environmentally sound treatment for runoff and/or stormwater.

best used if

- slope of street is between 2% and 4%.

don't use if

- a street has a grade shallower than 2% or steeper than 4%. If used on slopes above 4%, check dams may be used.
- property owners do not commit to maintaining and mowing.

estimated cost and funding

Little or no cost. A developer may be asked to create a grassed swale, or, if the site is already developed, SED will work with the property owner to create a grassed swale.

note

In developing plans for grassed swales, neighborhoods should work with SED's Drainage and Wastewater Utility planning division. For other drainage tools, see culverting (page 47), and curbs and gutters (page 48).

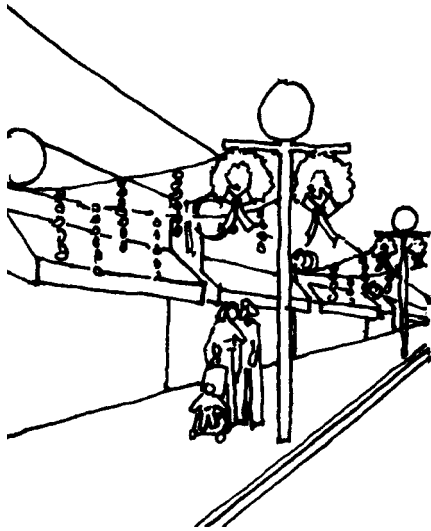
Related case study

North end drainage swales

page 109



Holiday Lighting



works for: arterial streets

Check it out!

Broadway and University
Way N.E. decorate with
holiday lighting.

For more info

see the Neighborhood
Business Council's "Guide
to Improvement Projects for
Seattle Business Districts."

Lighting street trees or stringing lights along buildings enables business districts to market their area to holiday shoppers. Outdoor lights brighten up shopping districts. Holiday lighting is temporary—the City allows lighting to be affixed to trees only between November 1 and January 31. All lighting and attachments must be removed from trees by February 1.

best used if

- community wishes to provide a distinctive holiday atmosphere for the district.

don't use if

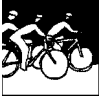
- light strings or power cords interfere with pedestrians
- lack of accessible power in light poles or difficulty in getting power to trees.

estimated cost and funding

Installing festoon outlets on poles costs approximately \$120 per pole. A \$60 street use permit and a \$250 deposit is required for the installation of lights in street trees. The deposit may be returned in full if there is no damage to the trees and all lights and related paraphernalia are removed on time. For example, the Broadway Business Improvement Association (BIA) lights over 100 trees for the winter holidays, at a cost of about \$10,000.

note

Consult the City Arborist before installing lighting strands and attachments to prevent costly damage to trees. If you are using City Light poles with festoon outlets, have City Light make all necessary repairs before installation dates. To save time and money, it is best to get a "cherry picker" donated for installation and take down. Check all power sources. Hire professional lighting designers for actual installation. Watch out for energized trolley wire and overhead power lines.



Increased Transit Services

works for: arterial streets

King County Metro has passenger load guidelines that help determine when action is necessary to address crowding on buses. Generally, Metro responds with a larger bus or an extra trip when passenger loads exceed Metro standards (usually 120% of seating capacity) and/or when passengers must stand for twenty minutes or more.

The Metropolitan King County Council adopted Metro's six-year Comprehensive Transit Plan in 1995. The plan, which calls for more bus service in Seattle, also represents a shift in the structure and orientation of bus services. The new network of bus operations will focus on multiple destinations, rather than a few key centers, so transfers between buses will be more common. New bus routes will be designed to support and coordinate with proposed new LINC community services.

note

If increased transit service is part of your neighborhood plan, please contact the King County Department of Transportation (Metro) Community Relations Office at 689-3793.



Landscaping Options

works for: residential streets

There are at least 1,000 miles of streets without sidewalks in the City of Seattle. Typically, the standards for landscaping along City streets require that they be curbed. The curb has several purposes, including the physical separation of pedestrians and plants from vehicles. Although the high cost of new curbs and sidewalks can be prohibitive, there is a way to successfully provide these amenities along an un-curbed roadway. Why bother? Because certain designs can minimize traffic impacts by cooling the pavement, slowing vehicles and screening them from view, and providing a pleasant environment for pedestrians. The street tends to look much more attractive when the entire block is landscaped in a consistent manner. In addition, if an entire block approves a design, more landscaping options are available to them than there would be to a single individual.

The components of good design include a five-foot wide walkway made of packed dirt, gravel, and asphalt. Five feet or more should be allocated for trees and ground cover. To find space for these amenities, temporary curbs made of 6"x6" treated wood timbers anchored into the ground can be installed within a few feet of the pavement edge. In addition to creating a barrier to protect pedestrians, the temporary curb will cause drivers to park their vehicles partially on the street, visually narrowing the street, and greatly decreasing speeding.

best used if

- neighborhood consensus favors design of a street that can slow traffic and includes a defined walkway, parking, and landscaped areas.

don't use if

- there is no community support for the design
- space or topography prevent placement of temporary curbs.

estimated cost and funding

\$60 for a permit which includes inspection.

note

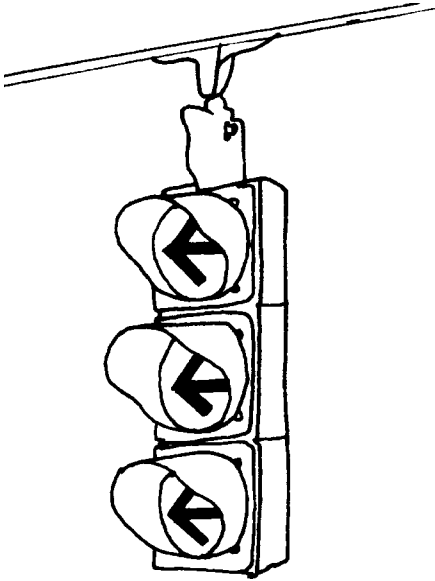
Every street is different, and SED must review all plans. Once a neighborhood has a detailed drawing of desired landscaping options, the City Arborist should be contacted to discuss landscape options and suitable plant material. Call 684-7649 for more information. To obtain street use permits for the project, contact the Street Use Section at 684-5086.

For more info

on street tree planting procedures, read the Urban Forest Tool, available from the Neighborhood Planning Office.



Left Turn Signals



works for: arterial streets
residential streets

Left turn signals are lighted arrow indications at a traffic signal, assigning the right-of-way to left turning traffic.

best used if

- left turn volumes meet City standards and opposing traffic, including pedestrians, is high
- left turn accident rate is high
- visibility of left turning traffic is poor
- neighborhood consensus favors a left turn signal.

don't use if

- left turn lanes cannot be installed, and potential for traffic backup is high
- less restrictive measures can be installed, such as left turn lanes
- the intersection delay for motorists and pedestrians would be unacceptable.

estimated cost and funding

\$10,000 to \$40,000 depending on the state of the existing equipment and site conditions. SED will study the proposed signal location and include the location on the needs list if City standards are met.

note

Neighborhood plans may recommend left turn signal locations. A citywide list of needs is prioritized annually, based on cost-benefit criteria.



LINC (experimental)

works for: arterial streets
residential streets

The Local Initiative for Neighborhood Circulation (LINC) concept was created to improve transit service to make it a more viable alternative to the automobile. Transit service in Seattle currently centers on the downtown area, and runs on arterials. LINC is a menu of different kinds of transit service that connects more neighborhoods to each other, extends transit service more deeply into residential areas, and helps bring people to important local destinations, such as grocery stores, post offices, parks, and schools.

Within neighborhoods, LINC uses shuttle buses that can maneuver most residential streets. These shuttles can run on flexible routes, taking riders where they need to go. “Dial-a-ride” services could also be part of LINC.

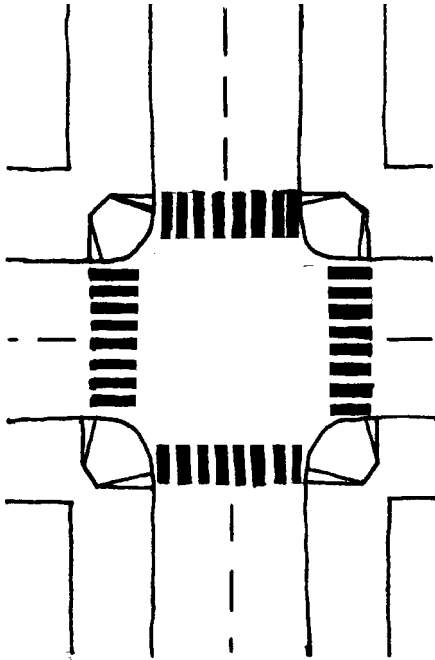
Many combinations of services from the LINC menu could be used to improve transit service.

note

LINC-type service has been successfully tested for six months in Ballard. The City of Seattle is seeking funds for operation in another neighborhood. Some LINC concepts have been incorporated in Metro’s six-year plan for improving transit service county-wide, and Metro is planning to include LINC service in Southeast Seattle in 1997.



Marked Crosswalks



works for: arterial streets

Legal crosswalks exist at all intersections, but they are not always marked by signs or pavement markings. Crosswalks can be marked at intersections and at midblock locations. Marked crosswalks alert motorists that they are approaching a high pedestrian location, and guide pedestrians to a safer crossing. Crosswalks are usually marked lines, either two parallel lines or a ladder-type pattern. They can also be textured or made of colored concrete. Midblock crosswalks are accompanied by signs or flashing beacons.

best used if

- crosswalk identifies a preferred crossing for the pedestrian: improved sight distance, reduced crossing distance and reduced vehicle/pedestrian conflicts
- used by a high number of pedestrians at intersections

don't use if

- locations have high traffic speeds
- locations have multiple travel lanes per direction
- locations are not accompanied by warning or traffic control devices.

estimated cost and funding

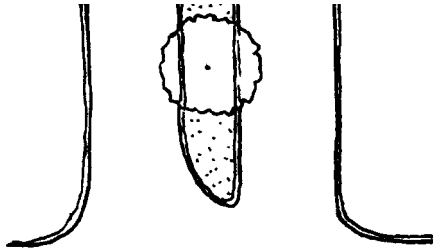
\$100 for a regular striped crosswalk, \$300 for a ladder crosswalk and \$3,000 for patterned concrete crosswalk. Approximately 20 new crosswalks are installed each year, although SED program funding levels change annually.

Questions?

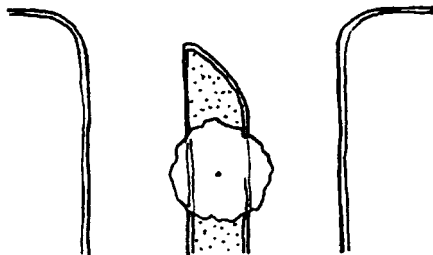
Commonly asked traffic questions are listed on pages 145 –150 of the Resources section.



Medians



Medians are long raised islands built in the center of a street. Medians can slow traffic, decrease accidents, and give pedestrians a safe place to stop as they cross the street. By providing areas for planting street trees and ground cover, medians can make the street more attractive and pleasant. Building a median requires narrowing lane widths, reducing the number of travel lanes, or removing on-street parking.



works for: arterial streets

best used if

- the volume of traffic on the street can be accommodated with fewer or narrower lanes
- in conjunction with existing two-way left turn lane
- a high volume of pedestrian crossings can be accommodated.

don't use if

- transit or emergency vehicles would be unreasonably impacted
- adjacent property owners oppose decreased left turn access, or reduced lanes.

Check it out!

Medians have been installed on 14th Avenue NW and Beacon Avenue South.

estimated cost and funding

\$15,000 to \$20,000 per 100 feet, depending on site conditions. Because of these costs, medians are usually installed as part of major utility or street improvement projects.

note

A two-way left turn lane is a good interim measure to test the appropriateness of a median before actually constructing one. Support for a median must come from 60% of the general neighborhood and 100% of the abutting property owners whose access will be significantly affected.

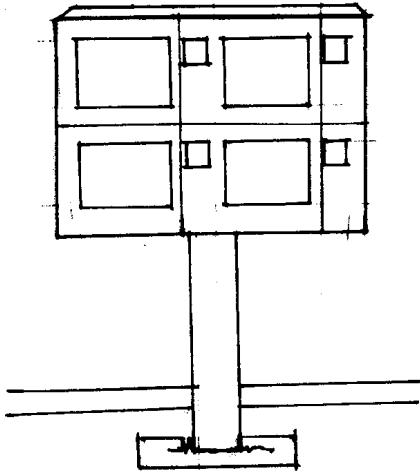
Related case studies

Thorndyke Avenue W.
page 113

Eighth Avenue NW
page 107



Modular Newspaper Rack



works for: arterial streets

Modular newspaper racks are permanent racks which have a pedestal base bolted into the sidewalk. A tray attached to the pedestal holds the publishers' own boxes. Once the modular racks are in place, publishers **MUST** use them, that is, free-standing boxes may not be placed within 120 feet of a modular rack. If all racks are full, publishers who desire a unit on that block must purchase a second modular rack and install it. For regular newspaper boxes, general SED policy is to have publishers place boxes together on one corner. When both corners are "full," boxes can be placed mid-block, provided they allow 5 feet or more sidewalk space and do not hamper wheelchair access, bus stops or loading zones.

best used if

- a business district would like to clean up the cluttered appearance of freestanding boxes.

estimated cost and funding

Approximately \$900 to \$1,000, depending on difficulty of installation.

note

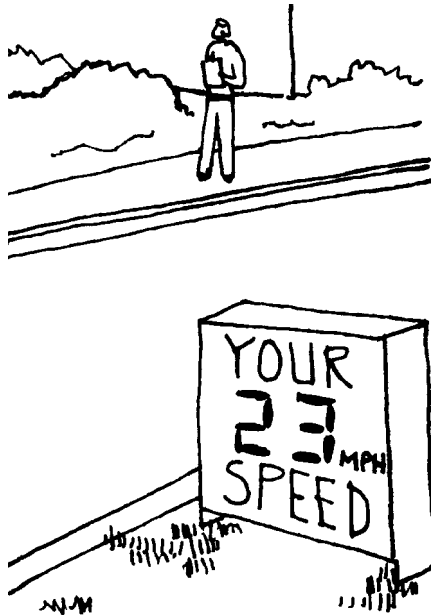
Property owners are advised to contact the "single copy" distribution offices of a major newspaper and work with them for installation. The racks are available from private firms, but they prefer to work with publishers rather than individual business organizations.

For more info

see the Neighborhood Business Council's "Guide to Improvement Projects for Seattle Business Districts."



Neighborhood Speed Watch—Step 1



works for: residential streets

Residents concerned with speeding traffic in their neighborhood use this educational program to inform motorists they are speeding. Neighborhood representatives are loaned a radar gun by SED to record speeds and identify chronic speeders. The City will send letters to drivers traveling more than 30 mph, reminding them of the importance of obeying the 25 mph speed limit, and that children and pedestrians are endangered by high speeds. Participation in the Neighborhood Speed Watch program helps to document traffic speeds and volumes on a street, and is recommended as a first step before considering other traffic control devices.

best used if

- speeding occurs on local streets
- street is used as a cut-through route by residents or non-residents
- awareness about neighborhood traffic concerns needs to be heightened.

estimated cost and funding

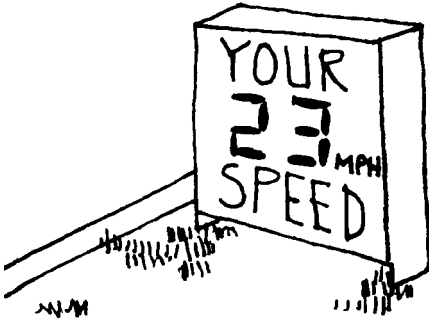
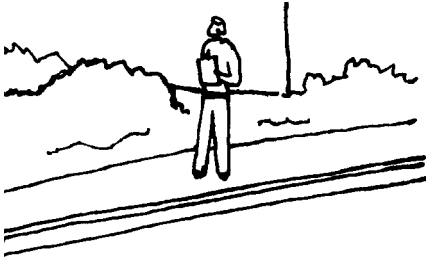
Free. Approximately 20 neighborhoods participate in this program each year.

note

Contact SED at 684-7577 to identify neighborhood speeding concerns. A brochure will be sent, describing the Neighborhood Speed Watch Program and the process for obtaining use of the radar gun.



Neighborhood Speed Watch—Step 2



Step 2 is usually recommended after the Neighborhood Speed Watch—Step 1 has been completed. SED will set up a speed display board or a radar speed-watch trailer during hours specified by the neighborhood. Vehicle speed is visually displayed to drivers. A police officer is available to cite or warn drivers traveling at excessive speeds. In addition, SED staff will work with the neighborhood to develop an educational brochure which can be distributed to neighbors and speeders.

best used if

- Neighborhood Speed Watch—Step 1 has been completed, and excessive speeding continues to occur.

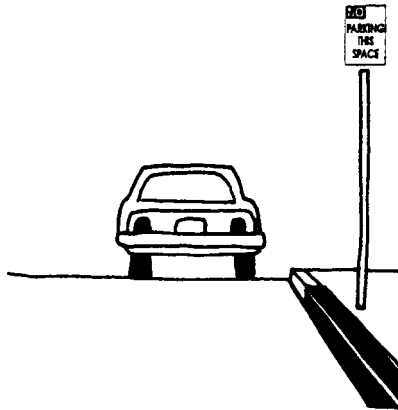
estimated cost and funding

Free. Approximately ten neighborhoods use the speed watch trailer each year.

works for: residential streets



No Parking



works for: arterial streets
residential streets

“No Parking” signs are installed on a street to increase mobility and safety when roads are narrow, used extensively by emergency vehicles, or the curb lane is used as a travel lane. “No Parking” signs are also placed near an intersection to increase sight distance, thereby decreasing the likelihood of an accident. It is also possible to install “No Parking” signs that are in effect during peak hours or for special events. “No Parking” signs on residential streets can be removed when neighbors choose to add parking to their street, if the street is at least 25’ wide. Adding parking on both sides of the street narrows the usable and effective street width and causes motorists to drive more slowly.

best used if

- intersection sight distance needs to be increased
- street is narrow
- neighborhood does not need additional parking spaces
- neighborhood wishes to increase mobility on a street.

don’t use if:

- neighborhood is concerned that vehicle speed will increase with wider travel lanes.

estimated cost and funding

Approximately \$75 per sign, installed. Little cost is incurred with removal.

For more info

on parking, including time limits and residential parking zones, refer to the Parking Tool, available from the Neighborhood Planning Office.

note

SED will investigate and install the “No Parking” signs if there is a safety issue. In other cases, neighbors must demonstrate approval through a petition signed by 60% of residents. If the neighborhood wishes to remove the “No Parking” signs along a street, SED will investigate. The signs can be removed with a petition signed by 60% of the residents, if they were not installed because of a safety issue.



One-way Street

works for: arterial streets
residential streets

One-way streets can be used to improve mobility or restrict vehicle access. They are clearly marked with signs to indicate the direction of travel. During the neighborhood planning process, the neighborhood may propose to designate streets as potential one-way couplets. While one-way streets can be an effective traffic control device, be aware that they can sometimes result in increased speeds and traffic violation rates on residential streets. Restricted access may also increase traffic through a neighborhood as drivers use alternate routes.

best used

- if paired with another street where traffic flows in the opposite direction
- on narrow streets with heavy traffic volumes—this helps one-way streets become self-enforcing.

don't use if

- speeding traffic is a concern because speed will likely increase on a one-way street
- traffic will be diverted onto another street
- street has low traffic volume or many driveways
- drivers will be tempted to go the wrong way
- neighborhood consensus does not support restricted vehicular access
- there are other demands for two-way operations
- partial street closure can achieve similar results (see p. 69)
- transit service would be disrupted.

estimated cost and funding

\$500 will provide enough signs for one block, but actual costs for system reconfiguration are much higher. SED receives approximately 50 requests per year and implements less than one one-way street per year.

note

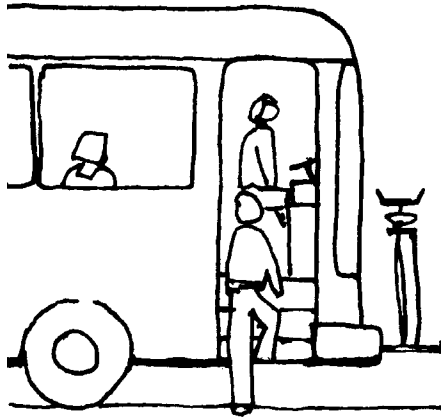
60% of residents and 75% or more of business owners on every street that may experience traffic diversion must approve the installation of a one-way couplet.



N.E. 44th Street, east of Latona Ave. N.E., has been converted into a one-way street.



Park & Ride



works for: arterial streets
residential streets

A park & ride is an area where transit riders can leave their cars and board buses or meet car- or vanpools. Park & ride facilities make transit and car- and vanpools more convenient. A park & ride is most often an off-street parking lot, but on-street curb space can be designated for park & ride use as well. Park & ride lots can be owned by Metro, leased from a private property owner, or shared with a business.

best used if

- a neighborhood cannot be efficiently served directly by bus
- existing transit users are occupying on-street parking that could be made available for short-term users
- proposed location is in a C-1, C-2, or NC-3 zone.

don't use if

- a park & ride increases local traffic
- Land Use Code discourages or prohibits
- park & ride lot would attract other parking uses not related to transit or ridesharing (for example, if nearby on-street parking is metered).

estimated cost and funding

Newly-developed, Metro-owned park & rides cost about \$10,000 to \$20,000 per parking stall. Leased park & ride space costs \$2.50 per stall per month (current average rate). On-street park & ride space for ten cars costs approximately \$300.

note

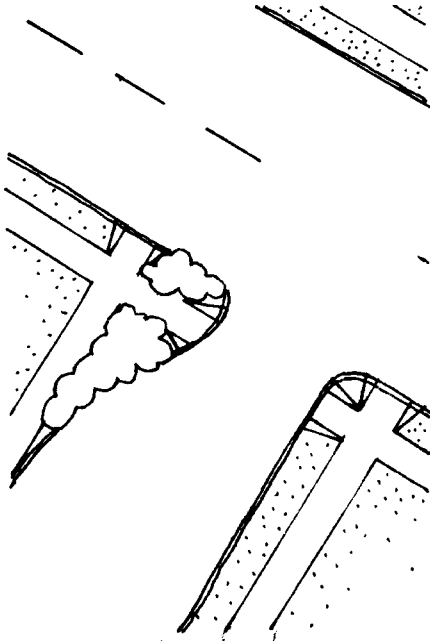
A neighborhood plan should identify proposed park & ride locations. Metro staff will evaluate the demand for park & ride space, review possible sites, and make recommendations.

See also

Zoning Tools,
available from the
Neighborhood Planning
Office.



Partial Street Closure



works for: residential streets

A partial closure is a curb bulb that physically blocks one direction of traffic at an intersection on an otherwise two-way street. A temporary partial closure is accomplished through striping and signs (No Right Turn, No Left Turn, Do Not Enter).

best used if

- street is used as a cut-through route and a less restrictive device does not address neighborhood's concerns
- 60% of residents on each street that may experience traffic diversion approve partial closure.

don't use if

- cut-through traffic will be diverted onto other non-arterial streets
- no appropriate alternative route exists
- street is a major emergency or school bus route
- conflicts with other neighborhood priorities, such as increasing access to neighborhood streets
- design limits bicycle access.

estimated cost and funding

\$6,000 for a landscaped partial closure, \$500 for signs and paint. SED does not have a dedicated funding program for partial closures.

note

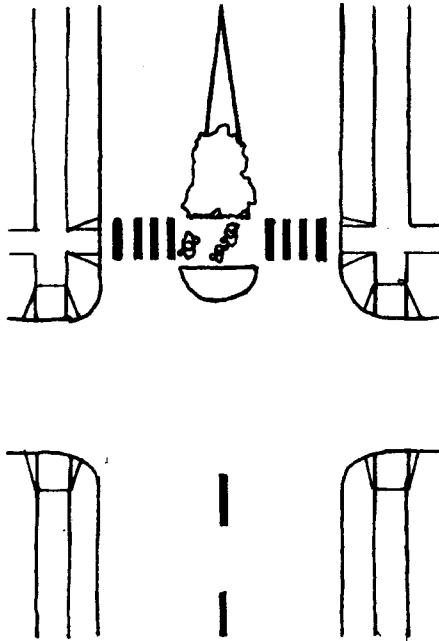
Partial street closures are usually installed as a result of a neighborhood planning process. Neighborhood approval must be obtained through a petition signed by 60% of the residents on each block that may be affected.



A partial street closure is located at E. Galer Street and 17th Avenue E.



Pedestrian Refuge Islands



works for: arterial streets

Pedestrian refuges are raised islands in the center of the street protecting the pedestrian from moving traffic. They allow pedestrians an opportunity to cross one half of the roadway, with a safe place to stop before crossing the second half of the roadway. They are typically constructed at marked crosswalks either at a midblock location or at an intersection.

best used if

- there is pedestrian crossing demand and traffic volumes result in few gaps for pedestrians to cross the entire street
- there is little demand to make left turns at an intersection, or a left turn pocket is not necessary due to an existing left turn restriction
- the island can be easily accommodated within an existing left turn pocket or center two-way left turn lane
- there are unique circumstances in the surrounding land uses or the shape of the intersection that create the need for the island
- community consensus has been reached regarding the turn restriction.

don't use if

- pedestrians can easily cross the street
- there is a large demand for vehicular left turns, as the island would eliminate left turn access
- the roadway is striped with a center line only; that is, there is not a left turn pocket or two-way left turn lane, making the island a potential obstruction in the roadway
- transit or emergency vehicles would be unreasonably impacted

estimated cost and funding

\$6,000 to \$9,000, depending on site conditions. Pedestrian refuge islands, installed with asphalt only are not as costly as islands installed with concrete or landscaping.

note

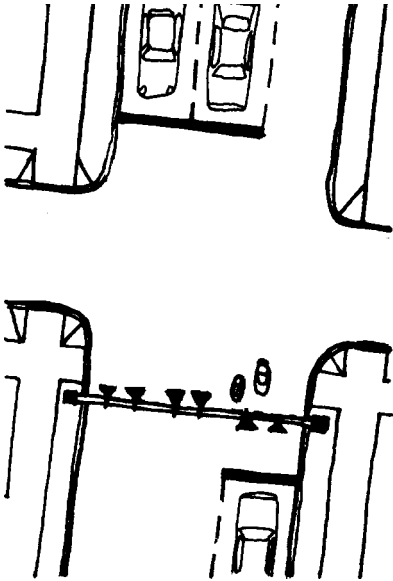
A neighborhood can identify a pedestrian refuge island as a possible option for arterial streets during the neighborhood planning process. SED will determine if an island is technically feasible. An interim measure may be identified.

Check it out!

Pedestrian refuge islands have been installed in Green Lake at Weedon Place N.E., N.E. 70th Street, and 5th Avenue N.E.; and in West Seattle at California Avenue S.W., north of Charleston Street.



Pedestrian Traffic Signals



works for: arterial streets

Pedestrian traffic signals, also known as half signals, stop traffic on arterial streets but do not control side street traffic. The signal is activated by a pedestrian push button, while the side street vehicle traffic is controlled by a stop sign.

best used if

- vehicle volumes on the main street are high, low on the side street, and pedestrian volumes are high or many seniors or people with disabilities cross the street
- intersection is on a school crossing route and the gap between vehicles is insufficient for safe crossing.

don't use if

- side street vehicle volumes are high
- accidents between vehicles are high (other solutions may be more appropriate)
- unusual sight distance problems exist for drivers on the side street
- other less restrictive or less costly solutions are available.

estimated cost and funding

\$15,000 to \$25,000. Approximately six pedestrian signals are built every year using a variety of funds. SED program funding levels change annually. Construction of pedestrian traffic signals is prioritized based upon cost-benefit criteria.

Check it out!

Pedestrian traffic signals are located at Eastlake Avenue and E. Boston Street, at Greenwood Avenue N. and N. 73rd Street, and at N.E. 42nd Street and University Way N.E.



Raised Intersections (experimental)

works for: arterial streets
residential streets

Raised intersections are usually constructed of concrete. The center of the intersection is raised three inches and gradually slopes down to street level behind the crosswalk.

best used if

- 85% of traffic speeds are greater than 35 mph
- neighborhood consensus favors reducing speeds at key intersections.

don't use if

- buses or emergency vehicles frequently use the street
- drainage and ponding cannot be addressed.

estimated cost and funding

At least \$70,000 per raised intersection.

note

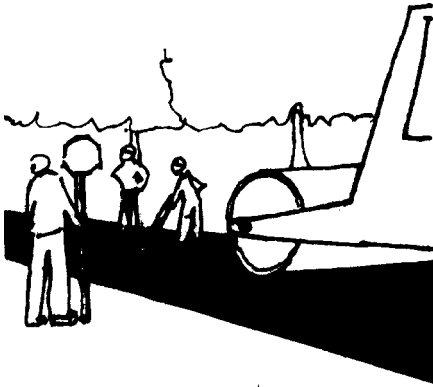
SED has built one raised intersection. Speeds have decreased only a small amount at the pilot site. Studies have shown that devices that cause vehicles to deviate from a straight course are more effective at slowing speeds than devices that cause vehicles to move up and down.

Related case
study

East Shelby Street
page105



Roadway Maintenance



works for: arterial streets
residential streets

The cost to operate and maintain Seattle's transportation system in its current condition is over \$50 million per year. Annual revenues cover slightly more than half that amount. In order to allocate funds fairly, priorities for infrastructure maintenance are based on pavement condition and how often the street is used.

Temporary street patching of potholes is completed as soon as possible after being reported. Severe frosts or a high volume of requests may cause some delay. To report a pothole, call 386-1218.

Sidewalk maintenance is the responsibility of the adjacent property owners. When the City damages a sidewalk, it is the City's responsibility to fix it. Typically, the City repairs sidewalks that have been broken up by tree roots. In addition to temporary repair, permanent replacement is based on severity of the problem and how many people use the sidewalk.

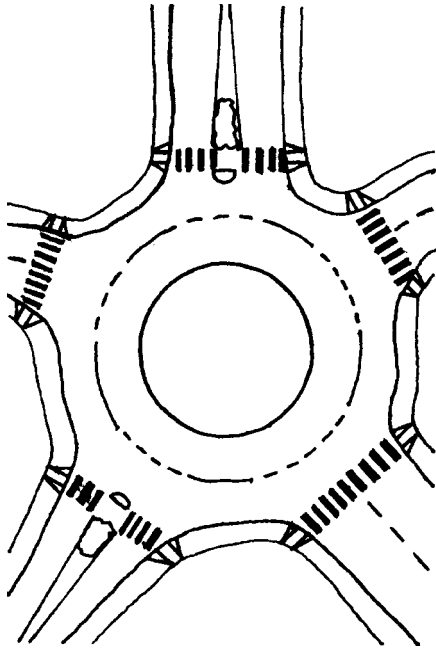
For **resurfacing** of arterial streets, pavement condition is determined, and streets are ranked by arterial functional class and geographic location. SED tries to extend its funds by partnering with communities or providing start-up money for street resurfacing.

Non-arterial streets are only resurfaced if the street is heavily used, such as a bus route. Streets are selected by pavement condition, then prioritized by geographic area.

Chip sealing unimproved asphalt streets involves repairing asphalt damage and then surfacing with a chip seal. The city is divided into 30 grids. One to three grids are completed each year.



Roundabout (experimental)



Roundabouts are large raised islands, usually landscaped, located in the intersection of arterial streets. A roundabout is similar to a traffic circle in that it causes motorists to decrease speed to maneuver around the island. Traffic circulates around the island in the same direction. No signals are used, only traffic control signs.

best used if

- traffic volumes are relatively equal on all approaches
- traffic volumes are not extremely high
- a signal may not be appropriate for the existing intersection
- the intersection is unusually large or complex.

don't use if

- intersection is a **T-intersection**
- street width is too narrow for roundabout construction
- intersection is used by large numbers of trucks or buses
- roundabout design restricts pedestrian or bicycle movement

works for: arterial streets

estimated cost and funding

Approximately \$15,000 for one roundabout. Costs can vary greatly depending upon the design.

note

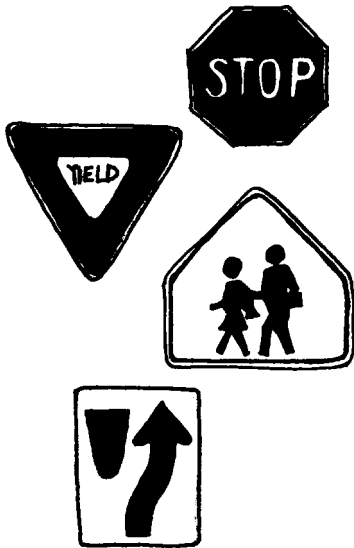
SED is currently experimenting with roundabouts. One has been constructed and pilot projects may be considered in the future.



You can see a roundabout at the intersection of East Lynn Street and Boyer Avenue East in Montlake.



Signs—Stop, Yield, Speed Limit, Warning



works for: arterial streets
residential streets

Some traffic signs orient people to where they are or need to go. Other traffic signs include stop, yield, speed limit, and warning signs. These signs inform drivers to be aware of special situations, yet are often ignored or overlooked. In general, traffic signs have not been as effective as **traffic calming** measures. Signs are only installed when they are the best solution to a problem. Signs must meet general City of Seattle guidelines.

best used if

- distinct need to inform drivers of a change in normal driving conditions.

don't use if

- there is no special condition to warrant a sign. Posting too many signs can distract drivers and/or cause them to disregard the sign's message.

estimated cost and funding

\$75-\$100 per sign. The Engineering Department will install signs as situations warrant.

Did you know?

An inappropriately placed sign can actually increase the potential for accidents.

Related case study

stop sign installation

page 110



Speed Humps (experimental)

works for: residential streets

Speed humps are paved mounds, raised approximately three inches, that extend the width of the street and are spaced approximately 400 feet apart. Vehicles are forced to slow down to cross over the speed hump. SED considers speed humps an experimental device and is currently testing them on various streets in Seattle.

best used if

- 85% of traffic is traveling at 35 mph or greater
- no other alternative traffic control device is available.

don't use if

- street is a major emergency vehicle or school bus route
- grade is steep, or sight distance is impaired
- design limits bicycle or motorcycle access

estimated cost and funding

\$2,000 per speed hump. SED does not have a dedicated funding program for speed humps.

note

SED will determine if speed humps are an appropriate traffic control device. Installation criteria are currently in the development stage. If SED approves the feasibility of speed humps, neighborhoods are encouraged to apply for Neighborhood Matching Funds through the Department of Neighborhoods (see page 96). A petition, demonstrating support by 60% of the neighborhood, must be obtained before speed humps can be constructed.

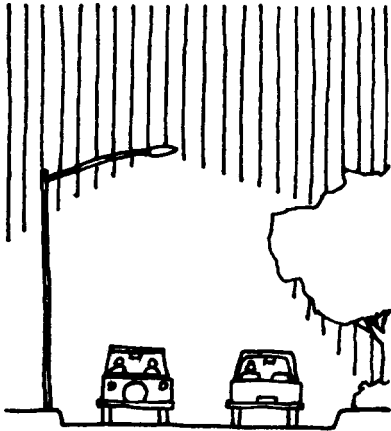


Check it out!

Experimental speed humps
have been installed on
Fremont Avenue N.
north of N. 105th Street.



Street and Area Lighting



works for: arterial streets
residential streets

City Light and SED maintain lighting fixtures and poles throughout the entire city, and ensure that they meet standard code. If your neighborhood chooses to upgrade area lighting with specialty fixtures, neighbors must install their own fixtures or rent the fixtures from City Light. City Light has a low-cost street light and floodlight leasing program that will improve outdoor security lighting. Floodlights focus light on a specific area as opposed to the general illumination of a street light. Residents and business owners purchase extra street lighting for alleys since the City does not maintain lighting in alleys.

best used if

- there is a need to increase visibility for the purposes of decreasing possible vandalism and providing greater security.

don't use if

- property owner will not provide written permission to add lighting fixtures or poles on the property
- exposed, unmetered conduit
- bright lights will cause discomfort to area residents.

estimated cost and funding

For street light illumination, installation is free if the light is directed on the street or alley. An installation fee is charged for lights directed onto private property. The property owner must rent fixtures and pay a monthly charge for at least two years.

note

Pedestrian scale lighting may be identified as part of a neighborhood plan. Pedestrian scale lighting is typically beyond the level of lighting service provided by the City.

Enlighten your neighborhood!

Improved street or area lighting may be a solution to public safety issues. City Light, the Seattle Police Department, and neighborhood block watch programs can all be of assistance.



Street Cleaning

works for: arterial streets
residential streets

SED provides some street cleaning services throughout the City. Cleaning services are prioritized by how much a street is used.

Street sweeping makes a street look more attractive and cared for, and also prevents garbage from entering into the sewer system. Principal arterials are swept once a week, minor and collector arterials are swept every two weeks, or at the same time as residential streets. Residential streets are swept up to twice a year.

Flushing thoroughly cleans a street or alley, and removes dust and odors. Due to heavy vehicle use, SED routinely flushes downtown and Duwamish Valley industrial area streets to maintain air quality. Downtown, Pioneer Square, Belltown, and International District alleys are flushed on a regular basis to minimize odors.

Stairway cleaning removes overgrowth from stairs. **Staired streets** (stairways) are cleaned once a year, and heavily used stairways are cleaned more often. Property owners who maintain stairways to City standards and clean them more frequently than once a year may have SED remove the waste they collect.

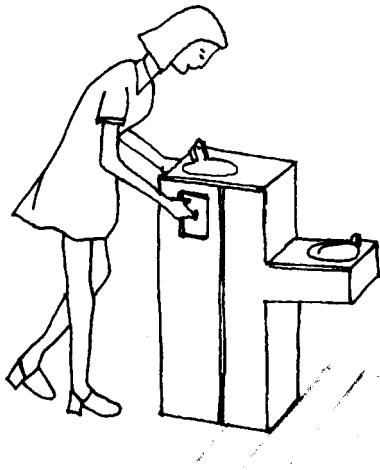
Litter cans are placed throughout the City, usually on arterial streets. Downtown receptacles are emptied daily. Receptacles outside the central business district are emptied once a week. If a community group agrees to empty the receptacles, they may obtain free litter cans from SED.



SED sponsors several programs for street cleaning and graffiti removal. See page 126 for more information.



Street Furniture



works for: arterial streets
residential streets

Check it out!

Street furniture has been installed on Market Street in the Ballard business district, and on West McGraw Street in the Magnolia Village business district.

Related case study

Fremont kiosks, page121

There are several kinds of street furniture: benches, drinking fountains, **kiosks**, clocks and others. Be careful to locate street furniture away from crosswalks, curb cuts, fire hydrants, loading and bus zones. Remember that sidewalks must have five feet of clear passage to ensure pedestrian safety.

best used if

The community wants to:

- increase social activity on a street
- add distinctive features that help identify an area
- provide places to sit or get information (from kiosks or signs)

don't use if

- the community will not commit to purchasing liability insurance for the street furniture
- there is no commitment to maintain and clean the street furniture
- five feet of clear passage cannot be maintained on sidewalks with street furniture

estimated cost and funding

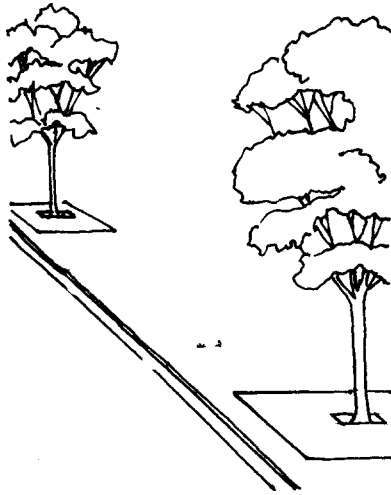
If furniture is to be located on the sidewalk or any other public right-of-way, your organization must show proof that the City of Seattle is listed on your insurance liability policy. Annual permits for street furniture cost \$60, and are obtained from SED. Neighborhood Matching Funds may be available for street furniture projects.

note

In your neighborhood plan, decide where you want to place the furniture. When you are ready to obtain permits, draw up complete design plans showing detailed specifications of the project including materials, exact site, location and depth of all drilling. Submit plans to SED for review. The sponsoring group must maintain and clean all furniture that they install. Contact an architect or landscape architect for suppliers.



Street Trees



works for: arterial streets
residential streets

Related case study

Alder, Spruce, and Fir—"all spruced up," page 122

For more info

contact TREEmendous Seattle and the Tree Stewards program for information on planting trees (see page 130).

Trees provide much more than an attractive canopy over the street. They create comfortable, pedestrian-scale spaces. Trees can reduce the need for seasonal heating and cooling, and absorb pollutants. They also give a street and neighborhood a distinctive identity. Trees last a very long time and some are not considered mature until they are over fifty years old. Neighborhoods become particularly attractive if complementary trees are planted along an entire block, or throughout an entire neighborhood. Consideration of street trees is an important component of any neighborhood plan.

best used if

- the entire block would like to plant trees along their street
- neighborhood has a plan for the final design of their street
- tree placement does not block existing street lighting
- a neighborhood plan identifies streets that are most appropriate for street tree projects
- there is both adequate space for trees and for a minimum sidewalk width.

don't use if

- trees will obstruct sight distances that may cause pedestrian or vehicle safety concerns
- trees reduce desirable street lighting.

estimated cost and funding

A free permit must be obtained from SED if trees will be planted, pruned, or removed from street right-of-way.

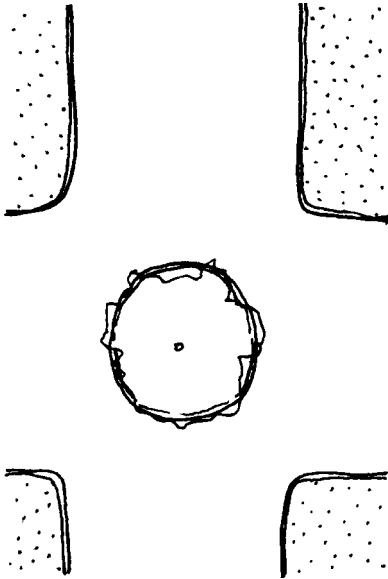
note

Given their long life span, the planting of trees needs to be carefully considered. Good tree selection and tree placement can minimize tree root damage to sidewalks. Potential interference with overhead electric or trolley wires often determines the range of available tree types for planting.

Follow SED landscaping standards for street tree planting, available from the City Arborist at 684-5042.



Traffic Circles



works for: residential streets

Traffic circles are raised islands constructed at intersections of residential streets. They cause motorists to decrease speed in order to maneuver around the circle, and prevent accidents from occurring. Traffic circles may include landscaping if the neighbors agree to maintain the plantings.

best used if

- there are many accidents at the intersection
- vehicle speeding and/or volume problem exists
- traffic circles are installed along a series of blocks in one area, as part of a neighborhood transportation program.

don't use if

- the location is a **T-intersection** and driveways are located within 30 feet of the intersection.

estimated cost and funding

\$4,000 for a landscaped circle on an asphalt street, \$6,000 for a landscaped circle on a concrete street. SED receives about 600 applications for traffic circles per year and is able to fund approximately fifteen. SED program funding levels change annually. If an intersection does not qualify for funds from this source, residents are encouraged to apply through the Neighborhood Matching Fund program (see page 96).

note

If an individual or neighborhood proposes installation of a traffic circle, an accident and site analysis will be conducted. The results of the analysis, along with a brochure describing the program, will be sent to the neighborhood. The traffic circle must be supported, through a petition, by 60% of neighbors within one block of the intersection.

Check it out!

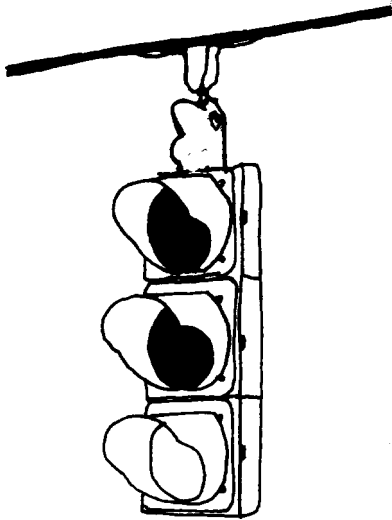
Traffic circles have been installed on Bagley Avenue N. between N. 40th and N. 45th Streets, and at 42nd Ave. S. and S. Hudson Street.

Related case study

Traffic circle on 42nd Avenue S., page 120



Traffic Signals



works for: arterial streets
residential streets

Traffic signals are computer-operated lights which assign right-of-way to vehicles and pedestrians entering an intersection. Traffic signals are typically used at locations where traffic volumes are high and motorists and/or pedestrians would have difficulty negotiating the intersection without such positive control.

best used if

- both main street and side street volumes are high, and meet City standards set for determination of need (otherwise, traffic is needlessly disrupted, and pedestrians usually won't wait for the signal to cross)
- intersection has a high number of accidents which are correctable by placement of a traffic signal
- pedestrian volumes are high, traffic volume is significant, and a pedestrian traffic signal is inappropriate.

don't use if

- City standards are not met
- signal would attract excessive traffic onto a residential street, and mitigation cannot be used
- other less restrictive or less costly solutions are available.

estimated cost and funding

\$20,000 to \$60,000 depending on site conditions. Approximately six traffic signals are built every year using program funds. SED program funding levels change annually.

note

Neighborhood plans may recommend traffic signal locations. A citywide list of needs is prioritized annually, based on cost-benefit criteria.



Traffic Signal Timing

works for: arterial streets
residential streets

SED periodically reviews traffic signal timing to ensure that safety considerations are maximized and traffic congestion is minimized. SED also takes requests for individual review of timing concerns, including green time allotted to side streets, length of “walk” signal for pedestrians, need for detection (including pedestrian push buttons), and synchronization of traffic signals.

best used if

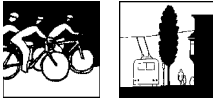
- signal systems can be modified, and equipment is flexible
- timing change increases safety for pedestrians and motorists
- timing change allows more vehicles to pass through the intersection and corridor.

don't use if

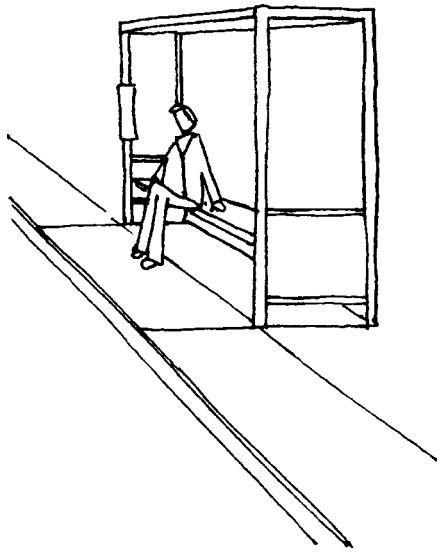
- timing changes cannot be made due to equipment or system constraints
- intersection delay for motorists and pedestrians would be unacceptable.

estimated cost and funding

Costs vary considerably, depending on the extent of changes, type of equipment, and other system constraints. SED will study requests, and make changes according to the feasibility of requests and available funding.



Transit Passenger Shelters



works for: arterial streets
residential streets

Transit passenger shelters provide protection from inclement weather and frequently include a bench or leaning rail. King County Metro is responsible for maintenance and cleaning of passenger shelters.

best used if

- more than fifty people board at this location each day (one-year average)
- adequate right-of-way is available to install the shelter
- location is a transfer point
- area includes many riders who are elderly or have disabilities
- adjacent property owners agree to the installation of the shelter
- sidewalks, curb ramps, and pathways connect the shelter to local destinations
- shelter installation will not impede pedestrian traffic flow or become a visual hazard for motorists.

don't use if

- pedestrian traffic will be impeded
- adjacent property owners are not in support of the shelter.

estimated cost and funding

Approximately \$10,000 for the installation of a shelter, or higher if a retaining wall or other engineering is required. SED coordinates with Metro to site new shelters. Priority is given to providing shelters at locations that have no existing weather protection, and that meet selection criteria.

note

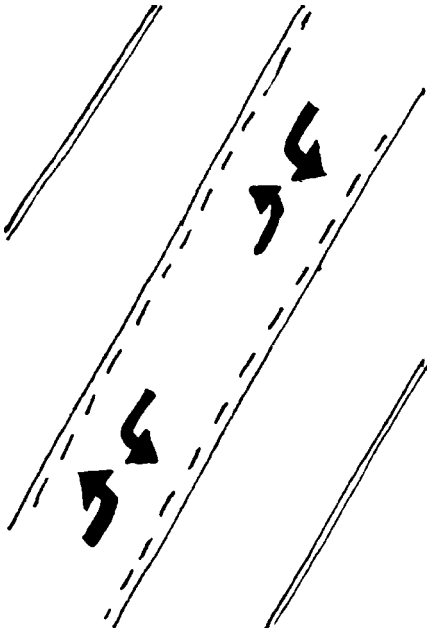
Neighborhood plans should identify and prioritize locations for transit passenger shelters.

Did you know?

Most transit centers have bike facilities. The Montlake transit center also contains bike lockers.



Two-way Left Turn Lane



works for: arterial streets

Left turn lanes are marked in the center of the street. They move left turning vehicles out of the traffic flow. Usually, a two-way left turn lane can be accommodated by reducing the number of through lanes or by eliminating parking. Two-way left turn lanes can help decrease accidents, slow traffic, create smoother traffic flow and provide crossings for pedestrians. A two-way left turn lane may be marked as an interim solution in locations where a future median may be constructed.

best used if

- the volume of traffic on the street can be accommodated with fewer or narrower lanes
- collisions occur involving left turning traffic, or many drive-ways and cross streets intersect the street.

don't use if

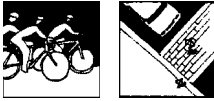
- street is not wide enough to accommodate a two-way left turn lane
- conflicts with other neighborhood priorities, such as maintaining on-street parking.

estimated cost and funding

\$1,000 per block. SED installs two-way left turn lanes along two streets each year. SED program funding levels change annually. If a two-way left turn lane is feasible, the community must demonstrate support either at meetings or through a petition.

Check it out!

See two-way left turn lanes
at Greenwood Ave. N.
south of 85th Street, and
Martin Luther King, Jr. Way.



Pedestrian Planning Tools

This section outlines pedestrian planning tools. When used as part of a neighborhood plan, these tools can direct many individual decisions that influence the overall quality of street environments and can make walking a viable transportation choice. The four tools listed on the following pages are some examples of planning techniques that you may want to consider in your neighborhood plan.

The first two pedestrian planning tools address traffic operations and the design of street improvements on behalf of pedestrians, bicyclists, and transit users. The last two are land use regulatory tools that address the important relationship between land uses, site design, and the quality of the street environment.



For more info

The Neighborhood Planning Toolbox contains many other planning tools on a variety of issues. Check with the Neighborhood Planning Office.

Key Pedestrian Streets Designation

Under the Comprehensive Plan, neighborhood plans can designate Key Pedestrian Streets within the highest density portions of urban villages and along logical connections between villages (see the Seattle Comprehensive Plan's Transportation Element, Policy T-46). A Key Pedestrian Street designation can help a community's chances of getting the improvements it wants by directing decisions about street improvements *when opportunities for improvements arise*. The Key Pedestrian Street designation means that a high priority will be placed on designing and operating those streets to be attractive for pedestrians, improving access to transit, and encouraging street level activity.

To find out more about designating a Key Pedestrian Street in your neighborhood plan, talk to your Neighborhood Planning Project Manager.

Green Streets Designations

A "Green Street" is a designation that can influence future private development on a street to be more **pedestrian-friendly**. A Green Street is a street classification where the street is designed to emphasize the needs of pedestrians, bicyclists and transit patrons, providing them improved access among a variety of destinations. There are four different Green Street designations, which vary in the extent of restrictions they place on vehicular traffic. Green Streets (formerly called Street Parks) have been designated through the Downtown and Northgate Plans. Work with your neighborhood planning project manager to propose Green Street designation as part of your neighborhood plan.



Also see

Seattle Comprehensive Plan, Policy T-46 and the Northgate Plan for information on key pedestrian streets. For information on how to designate Green Streets, see DCLU Director's Rule 11-93 and SED Director's Rule 93-4.



Look it up!

Zoning summaries, including more information on pedestrian overlays, are available from the Neighborhood Planning Office.



Refer to

“Design Review: Guidelines for Multifamily & Commercial Buildings,” and “Preparing Your Own Design Guidelines.” Both are available from the Neighborhood Planning Office.

Pedestrians and Zoning

The Seattle Land Use Code provides for special Pedestrian District overlays in commercial zones. These are known as P1 and P2 overlays. They are intended to preserve and encourage pedestrian-oriented retail areas. The overlay zones’ ability to affect the street environment comes from their requirements that new development meet specific standards that include a set of permitted and prohibited uses, reduced parking requirements, and limitations on blank facades. The P1 designation encourages “intense pedestrian interest and activity at street level with a wide variety of retail and service activities, and large numbers of shops and services per block.” The P2 designation is for less intense, less dense activity, but still encourages varied retail and service activities along commercial frontage uninterrupted by housing, drive-in facilities, or large parking areas. Both designations favor development built to the front property line, minimal pedestrian/auto conflicts, and a minimum of auto-oriented uses or interruptions.

P1 and P2 overlay zone designations may be proposed in your Neighborhood Plan.

Design Review

Design Review is a tool that can help communities influence future multifamily and commercial development. This can be especially important where, with design direction, new development can contribute to enhanced street environments and improved conditions for pedestrians. The design review process is based on adopted design guidelines, which provide flexibility for new development to respond to the distinctive character of its surroundings. Design guidelines cannot change zoning or resolve zoning disputes, control uses of property, or significantly reduce a project’s height, bulk, scale or density. Design guidelines can improve the quality of development, increase community involvement in the design and development review process, and help articulate a community’s design priorities. Neighborhood planning groups may develop their own localized design guidelines as part of a neighborhood plan. Neighborhood design guidelines should complement, but may supersede some, citywide guidelines, and become the basis for Design Review of specific projects review within a neighborhood.

Tools at a Glance

The next four pages give a summary, in tabular form, of the tools introduced in this chapter. The name of the tool and how it affects traffic volume, speed, noise, vehicle conflicts (accidents between two vehicles), pedestrian safety, bicycle safety, and emergency vehicle access is indicated.

The following symbols are used:

This symbol \nearrow indicates that use of the tool will generally increase the condition.

This symbol \circ indicates that use of the tool will generally decrease the condition.

No symbol indicates that use of the tool will generally not affect the condition.

These indicators are included to give you a general idea of how the tools work. Depending on the location and traffic conditions on a street, the tool may work differently. In addition to performance, the table also includes the types of streets on which you can use each tool, such as arterial and residential streets.

Estimates of the time it takes to complete each project (short term or long term) and relative costs (low or high) are also included. Short-term projects can typically be completed in one year or less, and long-term projects take at least a year to complete. Low cost projects are those that can be accomplished for \$10,000 or less, and high cost projects require over \$10,000 for completion.

Tools at a Glance

tool	page	vehicle volume	vehicle speed	noise	vehicle conflicts
Adopt-a-Street	32				
angle parking	33		○		✕
asphalt walkways	34				
bike lanes	35				
bike spot program	36				
bus only lanes & transit queue jump	37				✕
bus stops	38			✕	
bus stop bulb	39		○		✕
bus zone landing pads	40				
bus zone lighting	41				
bus zone mural program	42				
chicanes	43		○	○	○
choker	44	○	○	○	
concrete sidewalks	45				
consolidate utilities	46				
culverting	47				
curbs & gutters	48		○		
curb bulbs	49		○		
curb radius reduction	50		○		○
curb ramps	51				
district identification signs	52				
flower planters & banners	53				
full street closure	54	○	○	○	○
grassed swales	55				
holiday lighting	56				
increased transit services	57			✕	
landscaping options	58		○	○	○

traffic diverted to residential streets	pedestrian safety	bicycle safety	emergency and service vehicle access	estimated cost	timeline	appropriate for use on (street classification)
				low	short	both
		○		low	short	both
	✕			high	short	both
		✕		high	short	arterial
		✕		low	short	both
			✕	high	long	arterial
				low	short	both
	✕			high	long	arterial
	✕			low	short	both
	✕	✕		low	short	both
				low	short	both
	✕		○	high	short	residential
✕	✕		○	low	short	residential
	✕			high	long	both
				high	long	both
				low	short	both
	✕			high	long	both
	✕			high	long	both
	✕			high	long	both
	✕	✕		low	short	both
				low	short	both
				low	short	arterial
✕	✕	✕	○	high	long	residential
				low	short	both
				high	short	arterial
				high	long	arterial
	✕			low	short	residential

Tools at a Glance

tool	page	vehicle volume	vehicle speed	noise	vehicle conflicts
left turn signals	59				○
LINC	60	○			
marked crosswalks	61				
medians	62		○	○	○
modular newspaper rack	63				
neighborhood speed watch 1 & 2	64-65		○	○	
no parking	66		✕		
one-way street	67	✕	✕	✕	○
park & ride	68				
partial street closure	69	○		○	○
pedestrian refuge islands	70		○	○	○
pedestrian traffic signals	71			✕	
raised intersections	72		○	✕	
roadway maintenance	73		✕	○	
roundabout	74		○	○	○
signs (speed limit, etc.)	75				○
speed humps	76	○	○	✕	
street and area lighting	77				○
street cleaning	78				
street furniture	79				
street trees	80			○	
traffic circles	81		○	○	○
traffic signals	82			✕	○
traffic signal timing	83				○
transit passenger shelters	84				
two-way left turn lane	85		○		○

traffic diverted to residential streets	pedestrian safety	bicycle safety	emergency and service vehicle access	estimated cost	timeline	appropriate for use on (street classification)
				high	long	both
				high	long	both
				low	short	arterial
✕	✕		○	high	long	arterial
				low	short	arterial
	✕	✕		low	short	residential
				low	short	both
✕	✕	○		high	long	both
				high	long	both
✕	✕	✕		low	long	residential
✕	✕		○	high	long	arterial
	✕	✕		high	long	arterial
				high	long	both
	✕	✕	✕	low	short	both
				high	long	arterial
				low	short	both
	✕		○	low	long	residential
	✕	✕		low	short	both
		✕		low	short	both
				low	short	both
	✕			low	short	both
	✕			low	short	residential
	✕	✕	✕	high	long	both
○	✕		✕	low	short	both
	✕			high	short	both
			✕	high	long	arterial

chapter 3



putting it
all together

Putting it All Together



"My advice to other groups that are interested in putting together a neighborhood traffic plan is that it is very important to get a broad base of community support. It takes a lot of work and a lot of time, but for us it's starting to pay off."

Jan Shave, Columbia City Neighborhood Association

What happens next?

By going through the previous chapter you've built a profile of your street, identified the goals you are trying to achieve, and the problems you are trying to solve. You've applied tools from the "tool kit," and now you want to make these changes happen. Here's how you begin to go about it:

- Present your proposals clearly and concisely. Pictures and diagrams help. You can use the profile diagram in the previous chapter as a base.
- Use the cost estimates in the tool kit to figure out how much your proposals might cost.
- Prioritize your recommendations. While sometimes an opportunity comes up to redesign a street all at once, such as a major utility project, improvements are very often made one at a time. Setting priorities allows you to focus on the key improvements first.
- Document community support. Many of the tools require neighborhood petitions. The neighborhood planning program has requirements for community validation of neighborhood plans. Show that you have support for your proposals.
- Work with City staff, preferably as you are formulating your recommendations. Very often there's more than one way to achieve a neighborhood goal. City staff can help you determine things like the effect of an idea on the safety and functioning of the street, and the likelihood of obtaining grant funding from outside sources. The paragraphs below describe the roles of various departments.
- Finally, be patient and persistent. As you can see from the case studies, redesigning a street can take many years.

Department of Neighborhoods

Neighborhood Matching Fund

The Department of Neighborhoods' (DON) Neighborhood Matching Fund Program supports local grassroots action within neighborhoods, and has made many awards for traffic and street improvements. Using a competitive process, the Program provides cash to match neighborhood contributions of volunteer labor, professional services, donated materials or cash for neighborhood self-help projects.

Depending on the type of traffic or street improvement, the majority of a neighborhood's match can come in the form of in-kind services. For example, a residential street tree project allows neighbors to provide "sweat equity" as match by planting trees. For a group interested in having a traffic circle or chicanes installed to slow traffic, most of the match must be cash since a contractor needs to be hired to construct the circle or chicanes.

The Program has two funds that are appropriate for street improvement projects. The Semi-Annual Fund, which takes applications in the spring and fall, is available for projects that require more than \$5000 and will take at least a year to complete. The Small and Simple Projects Fund awards up to \$5000 to projects that can be completed within six months following an award. Applications for Small and Simple Projects are taken six times a year.

Examples of Matching Fund projects that have enhanced the street environment include **traffic calming** devices like circles and chicanes, street trees in residential and small business districts, pocket parks or P-Patch gardens at **street-ends**, neighborhood identification signs, business district banners, flower baskets and street furniture, kiosks, and traffic plans. Before deciding on a project, an organization should solicit neighborhood input and support, consult with SED, and get advice about submitting a competitive application from DON.



For more info

on Neighborhood Matching
Fund grants, contact the
Department of
Neighborhoods

(206) 684-0464

Neighborhood Planning Office


The Neighborhood Planning Office (NPO) was created to help Seattle neighborhoods shape the way they will grow and change over the next twenty years. The neighborhood planning process is community-driven, with the City providing support to communities who come together to craft a desired future and create a plan to achieve it. Resulting neighborhood plans will help guide City support and service delivery in Seattle neighborhoods.

City resources available through the NPO include planning funds for eligible areas. Neighborhoods including an urban village are eligible for planning funds of \$60,000 to \$80,000, with additional resources available for “distressed” areas. Neighborhood Plans are required for Seattle’s five Urban Centers and two Manufacturing/Industrial Centers. Each urban village within an Urban Center and each Manufacturing/Industrial Center is eligible for \$80,000 to \$100,000.

Neighborhoods interested in developing a neighborhood plan must first identify an organizing committee that represents a variety of neighborhood interests. Following a pre-application phase, there is a two-phase organizing and planning process resulting in a final neighborhood plan.

NPO has 10 project managers on staff who are assigned to geographic areas of the city to assist neighborhood groups in the planning process. The City, through NPO, will provide each neighborhood planning group with a detailed profile of the community, including maps and demographic data. Each group will also have access to a “toolbox” of resources to help it address a range of issues, from public safety to urban forestry. This workbook and companion video are part of the toolbox.

For more info



about neighborhood
planning, contact the
Neighborhood
Planning Office

(206) 684-8398.

Office of Management and Planning

The Office of Management and Planning (OMP) provides technical assistance for neighborhood planning projects. This technical expertise is provided through the NPO project managers, and includes transportation modeling, urban design, land use, and capital facilities planning. OMP is also responsible for stewardship of the Comprehensive Plan, keeping it up to date, managing the annual amendment process, and adding elements to the Plan. OMP coordinates major transportation projects for the City and other projects with significant transportation issues. OMP also coordinates City's capital improvement program and operating budget with planning priorities established in the Comprehensive Plan and through neighborhood planning.

Seattle Engineering Department

To facilitate the Mayor's goal of "seamless" government, SED has assigned three people to work with communities who are creating neighborhood plans. There is a person assigned to the North, which covers the area north of the ship canal, the South contact person works with communities south of I-90, and the Central contact person works with the communities in between.

These contacts are usually notified by the lead department, either the Neighborhood Planning Office or Department of Neighborhoods, that Engineering/Transportation review is required. The primary function of these contacts is to coordinate with other SED staff to make sure that improvements identified in a neighborhood plan both do what they are supposed to and are feasible.

Additional services provided by SED

SED works with individual citizens and communities on maintenance activities funded through an ongoing program of Operations and Maintenance (O&M). O&M activities are the day to day activities necessary for operating the transportation system. Such activities include opening and closing bridges, filling potholes, replacing traffic signal bulbs, repainting crosswalks, and street sweeping.

SED also provides spot improvements to the transportation system through ongoing Annual Programs. Annual Programs can install new traffic signals, make bicycle spot improvements, improve street lighting or provide neighborhood traffic control. Safety and preservation of existing infrastructure are the primary factors in how O&M and Annual Program expenditures are prioritized. Neighborhood plans and citizen requests are also important factors.

In addition to the O&M and Annual Programs, SED also funds capital projects which typically address the following areas:

- Major Maintenance projects replace or rehabilitate portions of the infrastructure. Examples of such activities include paving projects, seismic upgrades, and bridge replacement.
- Existing System Development are those projects that provide upgrades to the existing transportation system for safety or operational needs. Such activities can include signal system upgrades, and changes to the way lanes are configured.

- Future System Development are those projects that provide new capacity for future growth. These projects typically provide capacity for economic development activities, or improvements for modes other than the auto such as transit priority signals, HOV lanes, and bike/pedestrian facilities.

Funding for transportation improvements

Transportation improvements are financed through a variety of revenue sources. These sources include: federal and state gas tax revenues, vehicle license fees, state and federal grants, Public Works Trust Fund loans, City general fund, private organization reimbursements, and local bonds. O&M and Annual Programs are mostly funded by local (non-grant) revenue sources. However, SED has been successful in using Annual Program funds to leverage additional outside funding for capital projects, especially in the area of the bicycle and pedestrian programs. Capital projects are mainly funded through state and federal grants, or loans.

Each outside revenue/funding source has its own funding criteria and restrictions on use that are not controlled by the City. Consequently, these funding criteria play a significant role in project selection. SED analysis of transportation needs and community requests, usually identified in neighborhood plans, also have a role. The City does what it can to get additional outside funding for projects that are a community priority, but these projects do not always compete well for state or federal grants.

Since funding sources are limited, the City must establish priorities for selecting transportation improvement locations. Safety plays a key role in establishing priorities. For example, an improvement that corrects collision problems, thereby reducing injuries and property damage, is likely to be funded over one with little or no safety improvement benefits. A large portion of Seattle's transportation funds are spent on maintenance of existing transportation infrastructure. Maintenance funding is a priority that protects large investments that the public has already made.

When a project does not qualify for City-funded programs, some neighborhoods have been successful using the Neighbor-



on SED's annual programs
contact the Engineering
Department at

(206) 684-ROAD

hood Matching Fund program administered by the Department of Neighborhoods. Other neighborhoods have been able to construct transportation improvements by incorporating design elements from the neighborhood plan into the development of larger capital projects. Examples include sidewalks, **bike trails**, curb bulbs and left turn lanes. SED updates its list of Capital Projects annually. This information is available at your local Neighborhood Service Center. Many private developers have also contributed to their community by folding neighborhood projects into their development.

chapter 4

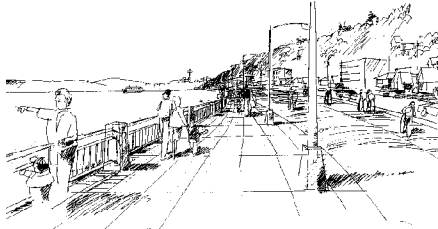


profiles

Profiles

The profiles in this chapter include many of the projects highlighted in the “Making Streets That Work” video, as well as additional examples. The location, description, and budget are included for each. Also highlighted are the people and groups who collaborated to turn these ideas into constructed projects.

Alki Avenue Trail Project



View of east end promenade along Alki Avenue Trail

location

Along Alki Avenue SW from Duwamish Head to the west end of Alki Beach Park

description

The project includes a mixed use bicycle and pedestrian trail along Alki Avenue SW; rebuilding of stairs along the sea wall to improve beach access, and landscape improvements at the west end of the park. Construction is expected to begin in fall of 1996 and finish by spring of 1997. The trail project was suggested by Alki citizens in 1991, during the Department of Parks and Recreation's public involvement process to decide how Shoreline Park Improvement Fund (SPIF) dollars would be allocated. The Department held numerous public meetings during the SPIF planning phase, and later during the Alki Trail design phase, inviting the participation of nearby residents and Alki area community organizations.

budget

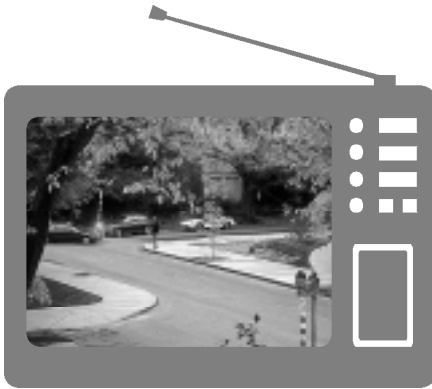
Shoreline Park Improvement Fund*	\$1.9 Million
Total	\$1.9 Million

people and groups involved

Alki Community Council
Greater Harbor 2000
Seattle Arts Commission
Seattle Engineering Department
Department of Neighborhoods
Seattle Department of Parks and Recreation
Washington State Department
of Natural Resources

* The Shoreline Park Improvement Fund was created to mitigate the impact of Metro's sewage treatment plant expansion at West Point. Metro agreed to pay the City of Seattle \$25 million to improve public access to Seattle's shorelines.

Harvard Avenue & Roy Street



location

Southwest and northwest corners of Harvard Avenue East and East Roy Street, Capitol Hill neighborhood

description

A neighborhood resident initiated this project in spring 1994 and it was completed in spring 1996. The curb radii on the northeast and southwest corners were reduced and benches and landscaping were added to the site. The **curb radius reduction** minimizes the crossing distance for pedestrians across Harvard at Roy, and also requires motorists to reduce their speed as they turn the corner. This further increases pedestrian safety.

The radius revision was funded through SED's 1995 capital improvement program. The community applied for and received a DON Small and Simple Neighborhood Matching Grant to landscape and install terra cotta benches at the site. SED constructed the radius revision and a private contractor was hired to complete the landscaping and bench installation. Delays occurred during several stages of project approval, causing some volunteers to lose enthusiasm. Earlier outreach could have prevented a complaint to the city from a nearby business owner.

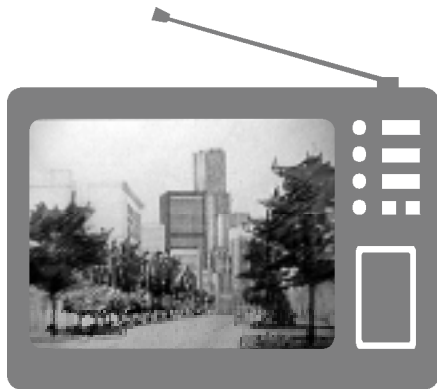
budget

Construction (SED)	\$55,000
Materials	donated
DON Small and Simple Fund (corner beautification)	\$5,000
Volunteer Labor and Supplies	\$4,000
<hr/>	
Total	\$64,000

people and groups involved

neighborhood residents
Kevin Kane and David Strauss—architects
Capitol Hill Community Council—sponsor
Seattle Engineering Department

Second Avenue—Belltown



Second Avenue urban design scheme, 1985



Second Ave. after project completion, 1996

location

Second Avenue between Virginia and Cedar Streets in the Belltown neighborhood

description

Improvements to Second Avenue in Belltown have occurred incrementally since the mid 1980s. This phase of the project includes widening the sidewalks, adding **curb bulbs**, landscaping, improving lighting, upgrading **traffic signals**, and adding bike lanes. The design was done by SED in 1994–95, with construction following from May to December, 1995. Public participation occurred throughout the project.

Most of the components of this project improve the safety and accessibility of the street for pedestrians. Curb bulbs shorten the area between curbs and minimize the pedestrian crossing distance. Higher lighting levels from additional street and **pedestrian scale lighting** increase nighttime safety. Landscaping and public art add visual interest to the streetscape. Wider sidewalks add walking area for pedestrians, and bicycle lanes improve street safety for bicyclists. One of the problems encountered with this project was locating new trees. Trees must not conflict with street/pedestrian lights, transit stops, or underground utility locations, and must be in locations satisfactory to residents and businesses.

Another issue that this project faced was that public participation during the original design phase addressed only the Second Avenue concerns and was not expanded to businesses and other uses along the side streets, such as Bell Street.

budget

Public Works Trust Fund

including 1% for Art funding \$2.5 Million

Total \$2.5 Million

people and groups involved

Seattle Engineering Department
Denny Hill Association
Seattle City Light
Seattle Arts Commission
Kurt Kiefer—project artist
Businesses located along the
Second Avenue corridor

Eighth Avenue N.W. Median



location

8th Avenue NW, between N. 65th and N. 85th Streets

description

Metro completed construction in 1989 of a new sewer interceptor pipeline down the middle of 8th Avenue NW. Residents petitioned Metro and SED for a landscaped median when the street was restored. Prior to this project, 8th Avenue NW was a four lane arterial with parking lanes on each side. The average speed of vehicles was well over the posted 30 mph limit. Pedestrians had a difficult time crossing the street safely, especially in the stretches between traffic signals. The median reduced the number of traffic lanes from four to two, and incorporated turn lanes at cross streets and improved pedestrian crossings.

Because a median would restrict turning movements on side streets, and impact access to all **driveways** along 8th Avenue NW, SED required that the project be approved by affected residents. Additionally, Fire Department concerns about access needed to be addressed in project design. A field demonstration was conducted to ensure that emergency vehicle access would not be impeded. The Eighth Avenue Neighborhood Committee mobilized volunteers to achieve the required petition approval. The petitions were presented to the Board of Public Works at a public hearing. Many residents were concerned about reducing the number of lanes, but the Board approved the project when it was made clear that existing and future traffic volume could easily be accommodated by fewer traffic lanes. Metro followed up with construction in 1989 and 1990.

budget

Design (SED) & Construction (Metro)	\$800,000
<hr/>	
Total	\$800,000

people and groups involved

Eighth Avenue Neighborhood Committee
Metro Water Quality Department
Seattle Engineering Department

East Shelby Street



street end before improvements



street end after improvements

location

The intersection of East Shelby Street, Fuhrman Avenue, and Boyer Street in Seattle's Montlake neighborhood

description

The East Shelby Street Combined Sewer Overflow project, which was begun as a routine sewer job, was completed in 1994 as much more than initially planned. The Portage Bay/Roanoke Park Community developed a transportation plan for the area, and worked with SED to show how traffic improvements at the Fuhrman/Boyer/East Shelby intersection fit with their plan. There are two parts to the project. The first includes a raised intersection, planted **pedestrian refuge islands**, curb ramps and curb bulbs. The second part of the project is a street-end park, with a decorative concrete **retaining wall**, seating, and landscaping. Because the community had a plan, they could work with SED to combine the street project with the sewer improvement project, significantly reducing the cost of building the intersection and the pedestrian refuge islands.

The combination of built elements on the arterial causes motorists to slow through the intersection and welcomes people to the community with plantings and textured paving. Pedestrian access from both sides of East Shelby Street is much easier. However, there have been some complaints about tire noise on the textured pavement. The street-end park improves access to the water, makes the street-end more pleasant, and commemorates local history by recognizing the rich Native American culture associated with Portage Bay. The park received an award for excellence in concrete design.

budget

Design & Construction (SED)	\$42,000
Community Contribution (landscaping)	\$8,000
<hr/>	
Total	\$50,000

people and groups involved

Portage Bay/Roanoke Park
Community Council
Seattle Engineering Department
Seattle Water Department
Seattle Design Commission

North End Drainage Swales



location

NW 105th Street and 3rd Avenue NW

description

The project was initiated in 1990 by the Viewland Elementary School who had safety concerns regarding the ditch alongside the area where children boarded school buses. SED's Drainage and Wastewater Utility (DWU) agreed to **culvert** portions of the ditch if a swale was incorporated into the project. Two **drainage swales** were built as part of an effort to improve water quality and reduce sediment in the Pipers Creek watershed.

The swales have effectively slowed the storm water down, trapping sediment and providing a sort of filtering system.

Because of sediment buildup, the swales require a slightly higher degree of maintenance than a regular ditch system. It was agreed that the school would maintain the ditch; however, staff changes created a question with maintenance for a period of time. The fairly high loading of debris mentioned above has been a problem for this particular location and should be avoided in the future by installing a **catch basin** to collect trash and other debris.

budget

DWU Drainage Maintenance Funds	\$5,000
<hr/>	
Total	\$5,000

people and groups involved

Viewland Elementary School
Carkeek Watershed Community
Action Project
SED Drainage and Wastewater Utility

Stop Sign Installation



location

34th Avenue West and West Emerson Street

description

Community residents contacted the Seattle Engineering Department with concerns about crossing and turning onto 34th Avenue West at West Emerson Street. A combination of parked cars, popular businesses, and bus stops near the corner contributed to a mix of short sight distances, numerous pedestrians, and many vehicles. The community suggested a number of solutions, including restricting parking, converting the intersection into a four-way stop, and installing a traffic signal.

Staff investigated the dynamics of the intersection, including reviewed accident reports, and measured traffic and pedestrian volumes to determine the best solution to the community's concerns. SED determined that traffic volumes, accident rates, and intersection geometry by themselves did not indicate that a traffic signal or restricted parking was appropriate. However, the installation of a set of chicanes on a nearby residential street would add enough traffic to West Emerson Street to increase its volume nearly to that of 34th Avenue West. Because the safe operation of a four-way stop depends upon roughly equal volumes of traffic on the intersecting streets, SED determined that an all-way stop was appropriate for this intersection. Two additional stop signs were added to West Emerson Street, converting the intersection to an all-way stop.

budget

Traffic Control Spot Safety Program.....	\$300
<hr/>	
Total.....	\$300

people and groups involved

neighborhood residents
local community clubs
Seattle Engineering Department

N. 45th Street in Wallingford



location

N. 45th Street between I-5 and Stone Way

This street shows, by example, how a number of different elements combine to make a street that works.

description

A collection of small stores fronting the sidewalk of a busy street (25,000 cars per day) with excellent transit service, 45th Street has many activities accessible by foot, bus, car and bicycle including a major food store, and the Wallingford Center, a shopping center in a restored school with a plaza on the street corner, and apartments upstairs. A movie theater generates pedestrian activity on the streets in the evening and stimulates business in the area's bars and restaurants, many of which have outdoor seating along the sidewalk. Awnings over the sidewalks provide intimacy for pedestrians as well as a protective canopy from rain or direct sunlight. Large parking lots in front of some buildings in the district detract from the otherwise **pedestrian-friendly** atmosphere.

attributes

- The **two-way left turn lane** allows traffic to move smoothly, and also creates crossing opportunities for pedestrians
- On-street parking provides a buffer between walkers and cars
- Efficient transit access and transfer points
- Public buildings such as the library
- Consistent street trees
- A variety of shops within walking distance of residences
- Many windows facing the sidewalk for passers-by to view the activity in local shops and restaurants
- Street furniture, such as bus stop benches and shelters and trash cans, though it is not consistent or unified, also contributes to the area's ambience.

Phinney Ridge Chicanes



location

NW 55th Street between First and Third Avenues NW

description

The Market Street capital improvement project provided the opportunity to address long-standing concerns about high traffic speeds and volumes on NW 55th Street, a residential access street. In 1991, neighborhood residents began what turned out to be a two-year process to get a series of landscaped **chicanes**, traffic circles, partial street closures, and appropriate signage installed. Extensive public participation in the form of meetings, letters, and a petition process was an integral part of this project. Residents were actively involved in every detail of the project. The chicanes were installed in 1992, and the landscaping was completed by residents in 1993.

Residents on adjacent residential streets were concerned about possible spillover traffic and loss of access with the chicanes. However, post-installation studies show the chicanes are effective in significantly reducing speeds and volumes without adversely affecting adjacent neighboring streets.

budget

SED Capital Improvement Project Fund.....	\$26,000
DON Small and Simple Projects Fund	\$3,000
<hr/>	
Total	\$29,000

people and groups involved

Seattle Engineering Department
Phinney Ridge Community Council
Woodland Park Zoo representative
Greenwood Neighborhood Service Center
Various neighborhood
subgroups for and against

Thorndyke Avenue West



location

Thorndyke Avenue West between West Plymouth Street and 23rd Avenue

description

A 16,000 square foot raised-timber curbed **median** was constructed along Thorndyke Avenue West to cover the existing mid-street gravel area. The median was landscaped with street trees, ground cover plants and beauty bark. The Magnolia Community Club received two separate Neighborhood Matching Grants to complete this project—one for the design and construction of a timber-curbed median, and the other for landscaping materials. The process began in 1988 and was completed in 1992. Public involvement helped determine the community's interest in the project and specific suggestions on the median design.

SED designed the median taking into account existing conditions, and recognizing that the median would be constructed and maintained by the community without the aid of heavy equipment. Volunteers constructed the median islands and Metro donated fill from the West Point Sewage Treatment Plant Construction Project. SED provided guidance on the selection of plant material. DON provided all necessary street use permits and signage. The community continues to care for and maintain the trees and plantings which have flourished.

budget

DON Neighborhood Matching Fund	\$5,300
SED Design	\$3,000
Metro In-Kind Donation (Fill)	\$17,000
<hr/>	
Total	\$25,300

people and groups involved

Magnolia Community Club
and local residents
Department of Neighborhoods
Seattle Engineering Department
Metro

Rainier Avenue, Columbia City



location

Rainier Avenue South between Alaska and Brandon streets

description

Rainier Avenue, for most of its seven-mile length, is a wide commercial strip with large parking lots fronting the street. Columbia City stands out uniquely along Rainier Avenue. This small-scale neighborhood business district of historic brick buildings contains some lessons in how to make a street **pedestrian-friendly**. The district received landmark status from the City of Seattle in 1978, and since that time numerous projects have been undertaken to enhance the character of the historic district.

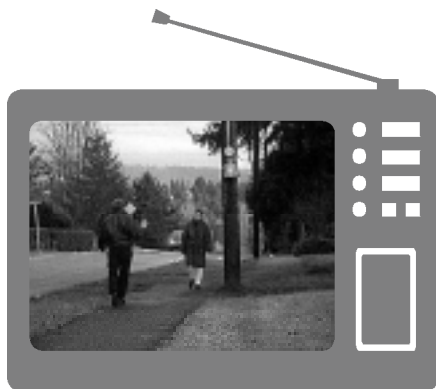
attributes

- on-street parking slows traffic and provides a **buffer** between pedestrians and cars
- at the heart of Metro's largest ridership area, with good north-south transit access and service
- strong architectural character of historic district contributes to community identity
- nearby community services and facilities, such as playfields, public library, Neighborhood Service Center, and community center
- one- and two-story historic brick buildings and awnings contribute to pedestrian-friendly atmosphere
- integrated **street furniture**, such as drinking fountains, clocks, **bollards**, continuous street trees, brick sidewalks, benches, and **pedestrian scale lighting** all enhance the environment of the district
- small public art projects, such as sculpture on library lawn, bus shelter murals, and "markers" near bus stops, create a distinct identity for the community
- improvements to building facades.

people and groups involved

South East Economic Development
Southeast Seattle Arts Council
Columbia City Revitalization Committee
Columbia City/Hillman City
Merchants Association
Columbia City Neighborhood Association
Columbia City Landmark
District Review Board
Seattle Engineering Department
Metro

First Avenue N.W. Asphalt Walkway



location

The east side of First Avenue Northwest between Northwest 125th Street and Northwest 127th Street at the Ida Culver House in the Greenwood neighborhood

description

This 600-foot section of walkway along First Avenue NW was designed and constructed in 1993–94. It is used by the residents of the Ida Culver House and was the only section of the block without an asphalt walkway or concrete sidewalk. The residents were awarded a Small and Simple Matching Fund projects grant by DON to fund the project. SED evaluated the walkway for constructability and cost. Key factors used to evaluate the walkway were parking, drainage, and ease of construction. Elimination of parking can make a walkway less desirable to residents. Closing open ditches to accommodate a walkway is expensive. Slopes that would require a rockery or **retaining wall** make construction difficult and more expensive. None of these factors was an issue at this site. The walkway would be easy to construct and was estimated to cost \$12,000 (\$20 per linear foot for a five-foot wide walkway). DON provided \$5,000 and Ida Culver House \$7,000. When the project was completed under budget, the remaining \$2,000 was returned to the residents. The walkway provides pedestrians with a firm, stable walking surface that separates them from cars traveling along the adjacent roadway.

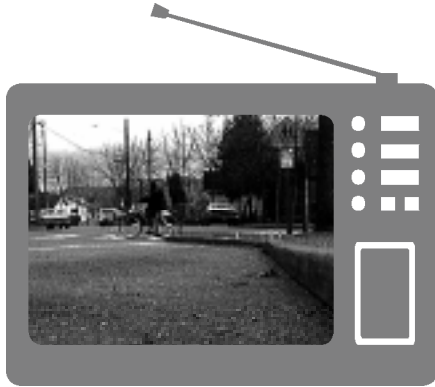
budget

DON Small and Simple Projects Fund	\$5,000
Ida Culver House	\$7,000
<hr/>	
Total	\$12,000

people and groups involved

Ida Culver House
Department of Neighborhoods
Seattle Engineering Department

20th & Lane Curb Bulbs



location

The intersection of 20th Avenue South and South Lane Street in Seattle's Central Area neighborhood

description

As part of the Jackson Place Neighborhood Traffic Management Plan (see page 123), the neighborhood identified **traffic calming** measures to address cut-through traffic, high-speed traffic and commercial vehicle traffic. Several low-cost improvements were identified along 20th Avenue South from South Jackson Street to South Charles Street. To provide increased pedestrian safety for the school, church and day care center located along 20th Avenue South between South Lane and Weller Streets, SED staff worked with the Jackson Place community to construct four concrete **curb bulbs** at these two locations. The improvements were constructed by September 1995. The curb bulbs narrow the crossing distance from 36 to 22 feet, reducing the pedestrian's exposure to moving traffic. The curb bulbs make the crossing safer for both pedestrian and motorist by enabling each to see the other more clearly.

budget

SED Pedestrian Program	\$25,000
<hr/>	
Total	\$25,000

people and groups involved

Jackson Place Community Council
Seattle Engineering Department

Central Park Trail



A neighbor and her dog enjoy a walk on a winter day. The first improvement of the trail was done on Earth Day 1995 with the help of more than 100 volunteers.

location

I-90 Lid to Pratt Park at Yesler Way in Seattle's Central Area neighborhood

description

The Central Park Trail will be a scenic walking and jogging trail running from the Mountains to Sound Trail at I-90 through four of the parks in the heart of Seattle's Central Area. The trail will provide safe, improved pedestrian access for all age groups to the Central Area's many public facilities and business districts. The Central Park Trail is an innovative project, interweaving a trail corridor through park and school district properties and developed and undeveloped street right-of-way. The concept for the Trail is being refined through a community design process. Elements will include opportunities for education and interpretation of the community's natural history and cultural heritage.

The Central Park Trail was first proposed in the 1993 Central Area Action Plan. There has been extensive outreach to the surrounding community and neighboring property owners, businesses, institutions, organizations, and user groups that have an interest in the area. Securing funding has been an ongoing process that has required vigilance at every step. The project has been linked with other City projects to maximize efficiency and use of resources.

people and groups involved

Central Area Development Association
Central Area Action Plan—
Implementation Team
African American Heritage Museum &
Cultural Center
Catholic Community Services
Central Area Arts Council
Central Area Chamber of Commerce
Central Area Motivation Program
Colman School
Douglass Truth Library
Friends of Seattle's Olmsted Parks
Happy Medium School
I Love Jackson Street
Jackson Place Community Council
Judkins Community Council
Langston Hughes Cultural Arts Center
Leschi Improvement Council
Mountains to Sound Greenway
Odessa Brown Children's Clinic
Pratt Fine Arts Center
Pratt Park Community Council
Seattle Engineering Department
Seattle Department of Parks and Recreation
Seattle Vocational Institute
TREEmendous Seattle
Washington Middle School
Washington Middle School PTSA

budget—trail portion only

Federal Urban Partnership grant	\$37,000
In-kind community match.....	\$37,000
DON Neighborhood Matching Fund	\$28,120
Community match	\$14,060
ISTEA Enhancement grant	\$369,600
Local match (City)	\$110,400
Total	\$596,180

Restriping Greenwood Avenue N.



location

Greenwood Avenue N. at 85th Street, and south to Phinney Avenue N. at 50th Street

description

The street was a four-lane arterial with parking, curbs, and sidewalks. Improvements were made to address community concerns about speeding traffic and multiple-lane threats that impede pedestrian safety. Multiple-lane threats occur when a motorist in one lane stops and waits for a pedestrian to cross, but the motorist in the second lane does not stop.

The community worked closely with SED to create a **pedestrian-friendly** street design. The street was restriped to one travel lane in each direction with a center turn lane and **bike lanes**. Signage and street lights were added, and corner parking restrictions were imposed to increase pedestrian safety at frequently used corners. The community initially brought their concerns to SED in 1980, but community consensus could not be reached on ways to improve the street, so no changes were made. In 1994, the community was able to reach consensus, and the improvements were completed.

As a result, traffic travels slower, and motorists stop for pedestrians in crosswalks more frequently. The center turn lane has reduced driver frustrations by separating the turning movements from through traffic, as well as allowing pedestrians to cross the street more safely.

budget

SED Bike Spot Improvement	\$6,000
SED Arterial Program	\$6,000
<hr/>	
Total	\$12,000

people and groups involved

Greenwood/Phinney Ridge Community
Seattle Engineering Department

Weather Watch Street-End Park



location

Beach Drive SW and SW Carroll Street, in West Seattle

description

Weather Watch Park was created on a site that used to be a litter-strewn **street-end** adjacent to a Metro bus stop. A local resident coordinated with other neighbors to create this project. The park elements include a curved concrete bench inlaid with a bronze relief map of the Olympic peaks, and a triangular column that carries photographic images and has a weather vane on top. The half moon area in front of the bench is paved with over 500 bricks engraved with short expressions and the names of area residents who purchased the bricks to help finance this project. The park and beach area beyond is planted with vegetation that thrives in this salt water environment. Materials and professional expertise were contributed as in-kind donations to this project.

budget

DON Neighborhood Matching Fund	\$35,000
In-Kind Donations	\$40,000
Cash Donations.....	\$10,000
<hr/>	
Total.....	\$85,000

people and groups involved

Alki Community Council
Lezlie Jane—project coordinator/artist
West Seattle residents
Department of Neighborhoods
Seattle Engineering Department
Seattle Department of Parks and Recreation

Traffic Circle on 42nd Avenue South



location

42nd Avenue South and South Holly Street

description

Over the years, SED had received a number of requests for traffic control at this intersection. Investigation revealed high speeds, (85% of the traffic was going 31 mph or faster), high volumes (1,215 cars per day), and high accident rates (five accidents in the last three years). Although the community had requested traffic control for each of the four previous years, the intersection did not compete successfully for a traffic circle until 1995.* Additional complications included special design because of difficult intersection geometry.

As with all traffic circles funded by SED, the Engineering Department and community volunteers landscape the circle in the spring following construction and a community volunteer maintains the traffic circle.

budget

SED Neighborhood Traffic Control Program	\$6,500
<hr/>	
Total	\$6,500

people and groups involved

community members
Seattle Engineering Department

* SED's Neighborhood Traffic Control Program receives funds to build seven to fifteen traffic circles a year. With over 600 annual requests for traffic circles, priority is given to those intersections with high accidents, speeds, and volumes. If an intersection does not compete well for SED funding, communities are encouraged to apply to the Department of Neighborhoods for Matching Funds.

Fremont Kiosks



location

Along Fremont Avenue North near N. 34th Street

description

Like other business districts, Fremont's light poles were frequently littered with posters, fliers, and other notices announcing everything from lost animals to upcoming garage sales to musical performances. Members of the business community were not opposed to these kinds of notices, but preferred to have them posted at designated spots which were regularly maintained (i.e., old notices removed).

After much discussion, the Fremont Chamber of Commerce decided that strategically located kiosks would help to alleviate the problem of littered light poles. To keep information up to date, nearby business operators agreed to remove old fliers and notices to make space for new ones.

Once the kiosk design was completed and approved by SED (approval was required because the kiosks were to be installed on the sidewalk), the Chamber applied for and was awarded a DON Small and Simple Projects Fund grant. In combination with a small amount of cash, volunteer labor, and donated professional services and materials, the Chamber was able to have three kiosks fabricated and installed at key locations in the business district.

budget

DON Small and Simple Projects Fund	\$2,500
Community match	\$1,682
<hr/>	
Total	\$5,182

people and groups involved

Fremont Chamber of Commerce
Fremont Architectural Pottery
Seattle Engineering Department
Department of Neighborhoods

Alder, Spruce, and Fir—"All Spruced Up"



location

24th and 25th Avenues, from East Yesler to East Alder

description

This project was initiated by a committed group of Neighborhood Block Watch participants who cared about the appearance and livability of their community. Litter, graffiti, school bus noise and congestion were the neighbors' principal concerns. The Neighborhood Block Watch planned a "spruce up" day that required participation from all segments of the community. Included in the work program was graffiti "paint out," tree planting, traffic circle landscaping, and litter pick up.

With technical assistance from the City of Seattle, specific locations were targeted as "tree friendly" environments—places where trees could be planted as a buffer from street noises. Residents received training through the Tree Stewards program to encourage more neighborhood participation and to ensure that the trees had a long and healthy life. Neighbors assisted in the planting of 30 trees. (Several months earlier City Light had provided over 90 trees for a similar tree planting effort in this same community). Volunteers also painted garbage cans and placed them in strategic locations adjacent to Garfield High School to encourage their use. School officials have agreed that the cans will be emptied as part of a regular maintenance program. This community effort has resulted in a neighborhood that projects an image of pride and prosperity.

budget

DON Small and Simple Projects Fund	\$1,050
Community match	\$2,596
<hr/>	
Total	\$3,646

people and groups involved

24th and 25th Avenues, East Yesler
to East Alder Block Watch
Seattle 4-H Youth/
Central Area Youth Association
Garfield High School Earth Corps
Garfield Community Council
NOVA
Seattle Engineering Department
Tree Steward Program
Department of Neighborhoods

Jackson Place Neighborhood Traffic Management Plan



**"...the street system must
work for everyone."**

**Ron Lewis,
transportation planner and
Central Area resident**

location

South Jackson Street to I-90, and Judkins Park to Rainier Avenue South

description

Starting in 1993 the Jackson Place Community Council Traffic Committee members led a community process to develop a traffic plan. They surveyed neighborhood residents, hired a traffic consultant, collected statistical data, and worked with other neighborhoods and businesses. The plan identified traffic calming and volume reduction as key to promoting a safer, street-oriented community.

The objectives of the plan were to thematically unify the neighborhood, discourage and reduce cut-through traffic, maintain adequate access for businesses and residents, consider the neighborhood as a whole, not to shift the problem from one street to another, improve personal safety by reducing auto speeds and improving pedestrian crossings, reduce the amount of crime in the area by decreasing the proportion of non-resident auto traffic and increasing resident foot traffic, and coordinate with and account for associated improvements such as the Central Park Trail, "I Love Jackson Street" project and City **bicycle routes**.

The community has opted to implement their plan in phases. Phase I consisted of low-cost least restrictive traffic control devices. Phase III consisted of very restrictive, expensive improvements, and Phase II consisted of a combination of the two. The Plan involved massive community input and participation, and took two years to complete. A year later, the Traffic Committee still meets once a month as they continue to implement Phase I of their plan.

budget

DON Small and Simple Projects Fund	\$3,000
Community match	\$6,126
<hr/>	
Total	\$9,126

people and groups involved

Jackson Place Community Council
David Evans and Associates, Inc.
Jackson Place Traffic Committee



Resources

If you have an interest in streets, you will find that there is a wealth of information from a wide variety of sources readily available. Included here is a sampling of some of those resources which may be of interest to you or your neighborhood group.

There are additional programs within Seattle which deal with the care and use of streets. Descriptions of some of those programs are included. A bibliography lists books, publications, and films about streets and their design, as well as strategies for making streets great and enjoyable places.

A table of Seattle street classifications is included to help show where and how your neighborhood streets fit into the regional transportation picture. Additionally, answers to some frequently asked traffic questions may be helpful to you or your organization.

A glossary of terms related to streets, and telephone numbers for some of the individuals, programs, and organizations mentioned complete this chapter and this book.

For additional resources on streets and on neighborhood planning, contact the Neighborhood Planning Office.

More Programs for Streets

Neighborhood Clean-Up Program

The Seattle Conservation Corps (SCC), a division of the City of Seattle's Department of Housing and Human Services, conducts yearly cleanups in Seattle neighborhoods. The SCC works with community groups to rid neighborhoods and individual homes of large junk and unwanted appliances. The SCC also assists community volunteers to clean private and public areas such as parks and vacant lots. Senior Citizens or disabled persons needing assistance may call the SCC directly for personal assistance. The program is funded by the Solid Waste Utility. For more information, call 684-0190.

Anti-Graffiti Program

The Seattle Solid Waste Utility sponsors a program to help communities take control of graffiti in their neighborhoods. The "Paint It Out" Info Line provides information on how to remove graffiti and how to organize or join a graffiti "Paint Out" team. The program provides gray, white and beige latex paint at no cost to groups and individuals for painting out graffiti. (This paint is recycled from paint discarded at hazardous waste sites.) Communities may also apply for financial assistance from the Litter and Graffiti Matching Fund. The Info Line number is 684-5004. The Litter, Illegal Dumping and Graffiti Hotline allows communities to report graffiti on *public* property. The Hotline number is 684-7587.

Storm Drain Stenciling

Volunteer school and community groups have been recruited by SED's Drainage and Wastewater Utility (DWU) to paint a pollution warning message on Seattle's 30,000 storm drain inlets. The message reads "Dump No Waste—Drains to Stream" and other variations depending on the receiving water connected to the storm drain. DWU's program is part of a larger statewide effort to increase public awareness about where storm drains lead and to overcome an "out of sight, out of mind" mentality related to waste disposal. DWU has received national recognition for its stenciling program. The program has been expanded through incorporation into DWU's schools program and will likely expand again through coordination with the Adopt-a-Street Program. More than 5,000 storm drain **inlets** have been stenciled in Seattle. Call 684-7868 for more information.

Spring Clean Program

The Spring Clean Program sponsors volunteer cleanups of public space annually during the last half of April. The program provides groups with plastic bags, free disposal and assistance. Ideas for Spring Clean projects can include picking up litter, planting flowers, painting out graffiti, and creating murals or other projects to beautify the public spaces in your neighborhood. For more information, contact SED's Solid Waste Utility, Spring Clean Program at 710 Second Avenue, Suite 505, Seattle, WA 98104. Call 684-7666.

Seattle Shoreline Street-Ends Policy

The City has developed a set of policies to support development of shoreline street-ends into public access points. There are approximately 150 shoreline street-ends in Seattle; over 100 of these have been identified as potential candidates for development into shoreline access, viewpoints, or other low-intensity activities.

The Shoreline Street-Ends Policy outlines three items: conditions for improvement of public access to shoreline street-ends, removal of private encroachments that impede access on public right-of-way, and the City review process for requests for street use permits related to shoreline street ends.

The Shoreline Street-Ends Policy provides guidance for an SED Director's Rule. This Director's Rule, when completed, will describe the process applicants should follow to submit a request for a street use permit, and the criteria the City will use to evaluate the application. Call 684-8850.

Local Improvement Districts (LIDs)

A Local Improvement District (LID) is a financing mechanism that joins property owners together to pay for high cost public improvements, such as roadway repaving, undergrounding of utilities, installation of concrete sidewalks and drainage, and building renovation. LIDs for street improvements are administered by SED. Properties that derive special benefit from the improvement are assessed for the improvement. LID assessments are billed in annual installments, which includes interest on the unpaid balance. Examples of LID projects include the Broadway Business District sidewalk and utility improvements, and the decorative sidewalk treatments and street furniture along Pine Street from 4th Avenue to 9th Avenue.

Groups interested in an LID should identify the type and scope of improvements needed. Groups can then request a petition from SED (684-7580). In order for a petition to be considered valid and for it to be filed with the City Council, it should have signatures of owners representing at least 50%, of both frontage and total area, of the benefiting properties. For valid petitions that have been filed with the City Council, SED prepares a “ballpark” estimate and conducts a mail survey of the benefiting property owners. SED notifies each property owner that a petition has been received and gives the amount of the estimated individual assessment based on the “ballpark” estimate. SED includes a survey sheet and business reply envelope and asks that each property owner indicate his/her desires with respect to proceeding with the LID in light of the cost estimate.

LIDs usually represent high costs to property owners, and have not been implemented in Seattle in recent years. Groups can sometimes fund and manage improvement projects more cheaply outside the LID process. However, all work in public right-of-way must meet SED specifications.

SED publishes a brochure called “LID Means Neighborhood Improvement,” which explains the LID process in more detail. For more information on LIDs or to request a petition, contact SED at 684-7580.

Business Improvement Associations (BIAs)

A Business Improvement Association (BIA) provides a way for a local business organization to fund improvements by assessing all those who will benefit from proposed improvements. Under state law, BIAs are permitted to use special assessment funds to improve the area. The special assessments may be calculated by whatever method is agreed upon by the district, such as square footage, business and occupancy tax rates, or linear feet of street frontage. Unlike the LID process where only physical proximity to an improvement is measured, the BIA is based on a level of general benefits.

In Seattle there are eight BIAs, each with its own set of goals and priorities. Allowed use of BIA funds raised by assessments include joint marketing, cleanup and maintenance, security, special events, beautification, management, and parking.

The process of establishing a BIA is similar to that for an LID;

a petition with 60% of the area's ratepayers must be submitted to the Department of Licenses and Consumer Affairs and approved by the City Council. The BIA is overseen by a Board, which is responsible for developing its program and budget. Neighborhood Matching Fund monies may be used to plan for a potential BIA.

The City's Office of Economic Development serves as liaison to BIAs, and assists in addressing questions related to BIAs. Call 684-0219 or 684-0700 for more information.

Landmark Preservation Districts

Seattle's seven landmark districts and special review districts illustrate how preserving historic elements such as buildings, streetscapes, and views contributes to the quality of street life.

Commercial and residential areas may be designated as landmark preservation districts in order to protect, enhance and perpetuate the individual historical or architectural identity of the area. Landmark preservation district designations help protect significant buildings and qualities that distinguish these areas, and encourage stability, restoration and planned development. Development standards and design review may be adopted specifically for a designated landmark district. The intent of a landmark district designation is to provide the flexibility and incentives necessary to retain historically and architecturally significant structures, and to maintain and enhance the character of the district.

Seattle offers a number of incentives to encourage landmark designation, including zoning and building code relief and special tax valuation for historic properties. The International Special Review District's guidelines explicitly encourage rehabilitation of areas for pedestrian oriented businesses. The Ballard Avenue and Columbia City Landmark Districts aim to preserve their small-town scale and feel. Downtown landmarks have a special set of additional incentives. The landmark designation process consists of four steps: nomination, designation, controls and incentives, and ordinance adoption by City Council. These steps are described in detail in the Seattle Landmarks Preservation Ordinance (Seattle Municipal Code Section 25.12). See also *Historic Preservation in Seattle: A Guide to Incentives and Procedures*.

For more information, contact the Urban Conservation Division, Seattle Department of Neighborhoods, 684-0228.

Bicycle Advisory Board

The Bicycle Advisory Board is a group of citizen bicycle advocates appointed by the Mayor, that advises City agencies about issues and projects related to bicycling. Part of the role of the Bicycle Advisory Board is to bring the ideas and priorities of the bicycling public to the attention of City officials. The Bicycle Advisory Board holds meetings that are open to the public on the first Wednesday of every month, from 7:00 to 9:00 p.m., in the fourth floor conference room of the Seattle Municipal Building.

Pedestrian Advisory Board

Pedestrian advocates are appointed to the Pedestrian Advisory Board by the Mayor, and are charged with advising City agencies about issues and projects related to walking. This board can bring ideas and priorities of pedestrians to the attention of City officials. The Board was established in 1994, and has been renewed on an annual basis. The meetings of the Pedestrian Advisory Board are open to the public, and are held the second Wednesday of each month in the fourth floor conference room of the Municipal Building (7:00–9:00 p.m.).

Tree Steward Program

The Tree Steward Program is coordinated by the Seattle Engineering Department in partnership with the Seattle Parks Department and Seattle City Light. Through a partnership with TREEmendous Seattle, volunteers, communities, and other government agencies work together to create a healthy urban forest.

This program was begun with a grant from the Washington State Department of Natural Resources. Since the first class in the spring of 1994, 180 Tree Stewards have been trained. Tree Stewards have saved many a tree by removing ivy, lifting up paver blocks, and untying stakes and wires. Their work improves tree vitality and creates a more attractive city.

The Tree Steward program works with communities in several ways. A 30-hour training course is offered twice a year to introduce volunteers to the basics of tree identification, biology, diseases, and safe tree planting techniques. How to care for trees, how to involve others in tree projects, and how to access

City resources are also part of the education material. Volunteers who complete the training are asked to contribute sixty hours of their time to help the City to care for public trees and green spaces.

Neighbors who would like to coordinate cleanups and weed removal for City-owned right-of-way can request assistance from the Tree Steward Program. Tree stewards can match your project with other volunteers, provide dump passes, training, and sometimes provide tools and a truck. Contact the Tree Steward program at 684-5008 for more information.

TREEmendous Seattle

Citizens may choose to volunteer on any number of tree planting and tree care events. The best way to find out what is going on and when, is through the Community Green Calendar available from TREEmendous Seattle.

TREEmendous Seattle is a non-profit organization dedicated to the care and enhancement of Seattle's urban forest through volunteer community stewardship. They help people participate in their immediate environment—city streets, parks and green spaces. TREEmendous Seattle would like to invite you to get your hands dirty, to have fun, and feel ownership for the trees in and around Seattle.

TREEmendous Seattle can be reached at 624-7075.

Friends of Seattle's Olmsted Parks

According to the Olmsted philosophy, city people deserve a little country in the city. For Seattle, the Olmsted brothers envisioned a system of green pathways and boulevards linking parks and bodies of water. That vision became a reality over a 33-year period, from 1903 to 1936. The Friends of Olmsted Parks is an organization devoted to the promotion of awareness, enjoyment, and care of the Olmsted legacy in Seattle. The Friends schedule tours, lectures, and special events. Contact Friends of Seattle's Olmsted Parks at P. O. Box 9884, Seattle, WA 98109-0884.

P–Patch Community Gardens

Community gardens can enhance street life by providing green, open, and social space. The P–Patch Program provides community garden space in Seattle's neighborhoods. Some P–Patch gardens feature art, others provide greenery along staired streets; many have made use of surplus City property that was otherwise unused. The community is responsible for identifying potential P–Patch sites. Program staff can help evaluate and gain use of the proposed site.

The evaluation considers criteria such as community interest, proximity to other sites, lot size, terrain, sun exposure, location, neighbors, and level of soil contamination. There are several avenues available to gain use of the site. If the land is publicly owned, program staff will work with the relevant government agency. If the land is privately owned, they will try to negotiate a minimum lease of five years. If purchase is the only option, program staff will work with community groups to locate sources of money, such as private foundations or public money available for open space acquisition.

Community members contribute labor, materials and professional services to transform the space into a community garden. Matching funds from the DON Neighborhood Matching Fund may be available to supplement community contributions.

The P–Patch Program is administered by the Seattle Department of Housing and Human Services. Call 684-0264 for information.

Books and Publications Relating to Seattle Streets

» Key resources are identified by this symbol. Check with the Neighborhood Planning Office for availability. Also check public and university libraries.

Books

Nyberg, Folke and Victor Steinbrueck. *An Inventory of Buildings and Urban Design Resources*. Seattle: Historic Seattle Preservation and Development Authority, 1975.

Phelps, Myra L. *Public Works in Seattle, A Narrative History [of] The Engineering Department 1875-1975*. Seattle: Kingsport Press for the Seattle Engineering Department, 1978.

Sale, Roger. *Seattle Past to Present*. Seattle: University of Washington Press, 1976.

Sherwood, Donald. *History of Seattle's Playgrounds and Parks*. Seattle: Donald Sherwood, 1986.

Reports, agency publications, and videos

Design Review: Guidelines for Multifamily and Commercial Buildings. City of Seattle Department of Construction and Land Use, October, 1993.

Eastlake Transportation Plan and Related Design Issues. Eastlake Community Council with the Seattle Department of Neighborhoods, August, 1994.

» *A Field Guide to Seattle's Public Art*. Seattle Arts Commission, 1991.

Self-guided tour itineraries, location maps, photographs, project histories, descriptions of 41 public art projects in Seattle, and a geographic listing of 256 public art sites throughout the city. Available through Sasquatch Books, (206) 467-4300.

» *Guide to Improvement Projects for Seattle Business Districts*. Neighborhood Business Council, 1994

A guide that covers street beautification projects, maintenance, parking, signs, traffic control, use of public areas, public safety and funding sources. Answers frequently asked questions, and provides contact names and telephone numbers. Available through the Neighborhood Business Council, 500 Wall Street, Suite #410, Seattle, WA 98121, telephone (206) 448-9340.

- » *Historic Preservation in Seattle: A Guide to Incentives and Procedures.* City of Seattle Department of Neighborhoods.
- » *Jackson Place Transportation Plan.* Jackson Place Community Council & City of Seattle Dept of Neighborhoods, March, 1995.
- » *LID Means Neighborhood Improvement.* City of Seattle Engineering Department.
- » *Making Your Neighborhood Better for Bikes.* City of Seattle Office of Management and Planning, December, 1995.
- » *Preparing Your Own Design Guidelines: A Handbook for Seattle's Neighborhoods.* City of Seattle Department of Construction and Land Use, and Department of Planning, October, 1993.
- » *Seattle Bicycle Guide Map.* Seattle Engineering Department.

Call (206) 684-7583 to obtain a copy.
- » *Seattle Street Improvement Manual.* Seattle Engineering Department & Seattle Department of Construction and Land Use, 1991.

The official interpretation of street improvement requirements in the Land Use Code for private development projects. Describes elements and requirements of street improvements for new and existing streets and alleys, design criteria, street improvement review procedures for permits, and required right-of-way widths. Available from DCLU.
- Street Tree Master Plan.* Seattle Engineering Department, 1994.
- Streets That Work.* Seattle Design Commission, 1994.

A descriptive booklet of winning streets from the semi-annual Design Awards program. Available from the Seattle Design Commission, telephone (206) 684-0435.
- » *Toward a Sustainable Seattle: A Plan for Managing Growth 1994-2014* (City of Seattle Comprehensive Plan), City of Seattle Department of Planning, adopted July 24, 1994.

Available from the Office of Management and Planning (684-8080), Neighborhood Service Centers, or public libraries.
- » *Traffic Circles* (video), City of Seattle Engineering Department, 600 Fourth Avenue, Room 410, Seattle, WA 98104
- » *Urban Forest Tool: Preserving, Protecting, and Enhancing Your Neighborhood Urban Forest.* City of Seattle, 1996.

Other Books, Publications, and Videos

- » Key resources are identified by this symbol. Check with the Neighborhood Planning Office for availability. Also check public and university libraries.

Designing streets for pedestrians

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- Davies, Stephen C., et. al. *Designing Effective Pedestrian Improvements in Business Districts*. New York: Project for Public Spaces, 1981.
- Fruin, John J. *Pedestrian Planning and Design*. New York: Metropolitan Association of Urban Designers and Environmental Planners, Inc., 1971.
- Hill, David R. and Leslie Ragan. *Pedestrian and Street Life Bibliography*. Council of Planning Librarians, Bibliography No. 275. 1991.
- Pushkarev, Boris with Jeffrey M. Zupen. *Urban Spaces for Pedestrians*. Cambridge: MIT Press, 1975.
- » Untermann, Richard K. *Accommodating the Pedestrian, Adapting Towns and Neighborhoods for Walking and Biking*. New York: Van Nostrand Reinhold Company, 1984.
- » Wallwork, Michael J. *Traffic Calming, A Guide to Street Sharing*. Florida Department of Transportation, 1993.

General urban design

- Alexander, Christopher. *A Pattern Language: Towns, Buildings, Construction*. New York: Oxford University Press, 1977.
- Bacon, Edmund. *Design of Cities*. New York: Penguin Books, 1967.
- Crowe, Timothy D. *Crime Prevention Through Environmental Design*. Boston: Butterworth-Heinemann for the National Crime Prevention Institute, 1991.
- » Cullen, Gordon. *Townscape*. London: The Architectural Press, 1961.
- Cutler, Laurence Stephan and Sherrie Stephens Cutler. *Recycling Cities for People, The Urban Design Process*. 2nd ed. Boston: CBI Publishing Company, Inc., 1982.

Leung, Hok Lin. *City Images: An Internal View*.
Ottawa: Ronald P. Frye, 1992.

Kelbaugh, Doug. *The Pedestrian Pocket Book*.
Princeton: Princeton Architectural Press, 1989.

» Relph, Edward. *The Modern Urban Landscape*.
London: Croom Helm, Ltd. 1987.

» Sucher, David. *City Comforts*.
Seattle: City Comforts Press, 1994.

» Trancik, Roger. *Finding Lost Space*.
New York: Van Nostrand Reinhold, 1986.

Weisman, Leslie Kanes. *Discrimination By Design: A Feminist Critique of the Man-Made Environment*.
Chicago: University of Illinois Press 1992.

Public art

Fleming, Ronald Lee and Renata von Tscharner with George Melrod. *PlaceMakers, Public Art That Tells You Where You Are*.
Cambridge: Townscape Institute, 1981.

Public open space

» Gehl, Jan. *Life Between Buildings, Using Public Space*.
New York: Van Nostrand Reinhold, 1980.

» Greenbie, Barrie B. *Spaces: Dimensions of the Human Landscape*. New Haven: Yale University Press, 1981.

» Jackson, John Brinkerhoff. *Discovering the Vernacular Landscape*. New Haven: Yale University Press, 1984.

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» Appleyard, Donald. *Livable Streets*.
Berkeley: University of California Press, 1981.

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Places 6:1 (Fall 1989): pp. 8-17.

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» Moudon, Anne Vernez, ed. *Public Streets for Public Use*.
New York: Columbia University Press, 1991.

Schoneman, Noel F. *A Guide for Residential Traffic Control Based On Seattle's Experience*. 1980.

Residential Streets.

National Association of Home Builders, Urban Land Institute, American Society of Civil Engineers, 1990.

Urban design and planning theory

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» Whyte, William H. *The Social Life of Small Urban Spaces*. New York: The Conservation Foundation, 1980.

Whyte, William H. *City: Rediscovering the Center*. New York: Anchor Books, 1988

Neighborhood conservation

Myers, Phyllis and Gordon Binder. *Neighborhood Conservation: Lessons from Three Cities*. Washington, DC: The Conservation Foundation, 1977.

Paterson, Douglas D. and Lisa J. Colby. *Heritage Landscapes in British Columbia A Guide to Their Identification, Documentation and Preservation*. Vancouver: University of British Columbia Landscape Architecture Department, 1989.

Plans and reports from agencies

Bicycle and Pedestrian Provisions Under ISTEA. Surface Transportation Policy Project, 1400 16th Street, NW, Suite 300, Washington, DC 20036.

To obtain a copy, contact the National Bicycle and Pedestrian Clearinghouse at (800) 760-6272.

- » *A Guide to Land Use and Public Transportation for Snohomish County, Washington, Vol. 1 and 2*. Snohomish County Transportation Authority, V.1: 1989; V.2: 1993

Volume 1 surveys a variety of user-friendly community planning and design ideas. Volume 2 explores the ideas in more detail, and offers specific strategies and models for public officials, planners, developers and citizens for making their communities more transit-compatible.

A Guidebook for School Pedestrian Safety. Olympia: Washington State Department of Transportation Traffic Office, 1995.

A guidebook designed to provide direction on how to develop and implement school walk routes, identify pedestrian safety deficiencies along school walk routes, and suggest remedial actions. Available from WSDOT Traffic Office, 505 E. Union St., Olympia, WA 98504-6826

City of Boulder Neighborhood Traffic Mitigation Program. Boulder, CO.

Graphic and written descriptions of many traffic mitigation tools, and their costs and benefits

Highway Capacity Manual. Transportation Research Board, 1985.

- » *Manual on Uniform Traffic Control Devices*. Federal Highway Administration, National Advisory Committee on Uniform Traffic Control Devices
Washington, DC: U. S. Government Printing Office, 1978

- » *Municipal Strategies to Increase Pedestrian Travel, Final Report*. WSEO Report #94-211.
Olympia: Washington State Energy Office, 1994.

Highlights the qualities and features of pedestrian-friendly environments and land use policies that support pedestrian activity. Available from the Washington State Energy Office, 925 Plum St. SE, PO Box 43165, Olympia, WA 98504

National Bicycling and Walking Study.

Washington, DC: Federal Highway Administration.

24 separate studies on bicycling and walking, covering topics such as environmental and health benefits, strategies to increase bicycling and walking, and examples of successful programs from around the world. Free from the National Bicycle and Pedestrian Clearinghouse, 1506 21st St. NW, Suite 210, Washington, DC 20036. Telephone (800) 760-6272, (202) 463-8405, email: nbpc@access.digex.net

Neighborhood Traffic Management for Local Service Streets.

Portland: City of Portland, Office of Transportation, Bureau of Traffic Management, 1994.

A program for residential streets, including how to handle overflow traffic, and impacts of various traffic management devices.

A New Way to Grow: Building Communities for People.

C-Tran, 1995

Land use and design considerations for single and multi-family residential, retail, institutional and commercial office development, examples of pedestrian-friendly development. Available from C-Tran, PO Box 2529, Vancouver, WA 98669. (360) 696-1602.

Older Adult Pedestrian Safety Booklet.

Heathrow, FL: American Automobile Association, 1990.

A nine-page summary of many of the concerns and limitations faced by older adult pedestrians, offering suggestions for design and engineering applications to make streets and intersections safer and more pleasant for older people. AAA, 330 6th Avenue N., Seattle, WA. Telephone (206) 448-5353.

Planning and Implementing Pedestrian Facilities in Suburban and Developing Rural Areas. National Cooperative Highway Research Program Report 294A. Washington, DC: National Research Council, 1987.

Pedestrian-sensitive site planning in residential areas, shopping centers, office and industrial parks, mixed use developments and commercial strip developments. Offers tips on how to make older suburban and small town main streets more pedestrian-friendly.

- » *Reclaiming Our Streets*. City of Portland, 1993.
 Portland's community action plan to calm neighborhood traffic. Covers recommendations in the areas of education and encouragement, engineering, enforcement and legislation. Bureau of Traffic Management, Office of Transportation, 1120 SW 5th Avenue, Suite 730, Portland OR 97204.
- » *Redevelopment for Livable Communities*. Olympia, Washington: Energy Outreach Center (Rhys Roth), 1995
 Emphasizes reducing sprawl and building communities where people can be less auto-dependent, and discusses 'retrofitting' town centers, commercial areas, shopping centers and residential neighborhoods to be pedestrian-friendly. Call the Washington State Energy Outreach Center at (360) 943-4595.
- » *Residential Street Design and Traffic Control*. Institute of Transportation Engineers, 525 School Street SW, Suite 410, Washington, DC 20024
- » *Traffic Calming, Auto Restricted Zones and Other Traffic Management Techniques—Their Effects on Bicycling and Pedestrians*. *National Bicycling and Walking Study FHWA Case Study No. 19*. Washington, DC: Federal Highway Administration, 1994.
 Descriptions, examples, and practical and policy implications of many types of traffic calming techniques. National Bicycle and Pedestrian Clearinghouse, 1506 21st St. NW, Suite 210, Washington, DC 20036. Telephone (800) 760-6272 or (202) 463-8405, email: nbpc@access.digex.net
Traffic Calming: The Solution to Urban Traffic and a New Vision for Neighborhood Livability. Citizens Advocating Responsible Transportation (CART), Tigard, OR: Sensible Transportation Options for People (STOP), 1993.
 Basics of traffic calming, costs and benefits, stories of successful traffic calming efforts from Australia, Europe and the US, ideas for local implementation. STOP, 15405 SW 116th Ave., #202B, Tigard, OR 97224. Telephone (503) 624-6083

- » *Walk Tall, A Citizen's Guide to Walkable Communities.* Pedestrian Federation of America, Emmaus, PA: Rodale Press, 1995.

Describes success stories from around the country, discusses threats to pedestrian safety, and offers ideas about how to overcome obstacles and take action to increase the 'walkability' of your community. Pedestrian Federation of America, 1506 21st St. NW, Suite 200, Washington, DC 20036.

Walkable Communities: Twelve Steps for an Effective Program. Florida Department of Transportation.

Companion book to a pedestrian facility design course, containing information on engineering, safety, visual preference surveys, and pedestrian-oriented planning. Available by calling Florida DOT at (904) 487-1200.

Films and videos

America by Design—the Street

Spiro Kostoff focuses on streets as the framework around which city development has occurred, describing the influence many modes of transportation have had on the shape of city streets including bicycles, trains, cars and pedestrians. Distributed by Boston Public Television. Available at the Seattle Public Library.

The American Urban Experience

Edmund Bacon narrates a description of the evolution of America's urban areas, focusing on the plans of Washington, DC, Chicago, Illinois, and Savannah, Georgia through a combination of historical footage, maps, and colorful narration. Distributed by Films Inc. Available for loan at the University of Washington.

Back to the Future: Redesigning our Landscapes with Form, Place & Density (1994)

Examines ways to reduce urban sprawl and reduce city traffic. Proposes higher urban density, integrating commercial and residential development, transit oriented development and small-lot housing. Covers the economics of density. Available for purchase through Urban Development Institute, 3rd Floor, 717 W. Pender Street, Vancouver, BC V6C 1G9

Bee a Safe Ped (1996)

A video for children (K-3) that teaches them how to cross the street safely. Produced by Cardinal Media for the City of Bellevue in cooperation with the Washington Traffic Safety Commission. Available from the Washington Traffic Safety Commission at (360) 753-4175.

Boulevards (1995)

Allan Jacobs promotes boulevards as both beautiful and safe for pedestrians, using time-lapse photography to prove his point. Available from the Institute of Urban and Regional Development, University of California at Berkeley, 316 Wurster Hall, Berkeley, CA 94720. Telephone (510) 642-4874

Cities for People (1979)

Explores the space left in the city—for people—after the buildings are built. Demonstrates that beauty, harmony and complexity are the factors that make cities livable. Available for loan at the University of Washington.

Cities in the Balance: Creating the Transit-Friendly Environment

Identifies how neighborhoods and commercial districts can be developed to encourage the use of public transit, walking and bicycles. Available for purchase from MDTB Publications, 1255 Imperial Avenue, Suite 1000, San Diego, CA 92101-7490. Telephone (619) 557-4523.

City as Man's Home

Part of Lewis Mumford's City series, this film shows development of city and suburban housing types, and explores the decline of communal life in the city and means of improving it. Available for loan at the University of Washington.

City: Cars or People? (1953)

Lewis Mumford examines methods of making cities accessible for people to meet and mix without relying on auto transportation. It offers early insights on auto dependency and urban congestion. Distributed by the National Film Board of Canada. Available for loan at the University of Washington.

The City of the Future

Edmund Bacon develops a new vision of the city around alternative transportation solutions and advocates lifestyles that are less dependent on automobile use. Segments examine Paolo Soleri's vision for a city in the Arizona desert, Kelso, Washington, and Davis, California, historical perspectives on "the city of the future," and plans for the perfect city designed by children. Distributed by Films, Inc. Available for loan at the University of Washington.

Downtowns for People

Urban centers in the United States and Europe show how good pedestrian spaces in the retail core of cities transform the experience of being downtown from an ordeal to a pleasure. Available for loan at the University of Washington.

» *In the Street*

Examines how neighborhood and environmental concerns in Toronto spurred a populist movement aimed at 'rethinking' streets and led the City of Toronto to adopt a traffic calming policy. Shows why residents of an older Toronto suburb rejected traditional street enhancements in their neighborhood in favor of traffic calming. Available through On The Ground, PO Box 9034, Berkeley, CA 94709-0034. Telephone (510) 883-0433. email: otg@OnTheGround.com.

John Nash and London

Provides the viewer with the experience of walking along Regent Street in London, describing the fire that destroyed London and the British Parliament's decision to rebuild the street and adjacent architecture. Insights into the politics of street building. Available for loan at the University of Washington.

» *The Social Life of Small Urban Spaces (1970)*

Presentation of William H. Whyte's research on the design and use of small urban spaces, based on his observations of New York City plazas in the 1960s. Available for loan at the University of Washington.

Seattle Street Classifications

The street classifications place Seattle's streets into eleven categories, six of which are used today and included below:

street classification	local access	number of lanes	average daily traffic	typical speed limit	average spacing
regional freeway	restricted	4–12	50,000+	55 mph	no standard
principal arterial	limited	4–6	5,000 to 40,000	30–45 mph	one mile
minor arterial	somewhat limited	2–4	3,000 to 15,000	30 mph	1/2 mile intervals
collector arterial	unlimited	2	1,000 to 5,000	30 mph	1/4 mile intervals
commercial access street	unlimited	2–4	low	25 mph	one block intervals
residential access street	unlimited	2	under 1,500	25 mph (20 mph in school zones)	500 feet intervals

The street classifications for transit and trucks corresponds with the street classifications. Truck routes (mostly on principal arterials) have been established. Trucks are allowed on all arterials and commercial access streets, but are not allowed on residential access streets unless the driver is making a delivery.

Most regional freeways, principal arterials, and minor arterials also have a transit classification. That classification—principal, major, or minor transit street—depends on the daily number of buses using the street. Collector arterials, commercial access streets, and residential access streets can also be designated a minor or temporary transit street.

Answers to Questions about Traffic Controls in Seattle

What does street design have to do with traffic law? Good street design is supportive of traffic laws. It's often possible to identify a street design problem that creates incentives to break the law. If crosswalks and/or traffic signals are spaced too far apart, pedestrians may jaywalk. Poorly located stop signs may cause motorists to ignore them. When you think about street design on your street, think about design options that encourage compliance with traffic regulations.

Can I turn left over a double yellow line?

If you don't block traffic and if the double yellow line is thinner than 18 inches, you can make a left turn. If the double yellow line is wider than 18 inches and marked with crosshatching, it is illegal to turn left.

Can two lanes of traffic turn left or right?

Only if signs designate that two lanes are turning.

Can I turn left onto a one-way street if the signal is red?

Yes, as long as you check for pedestrians and oncoming traffic, and turn into the nearest lane of traffic.

Are automobile drivers required to yield to buses or other transit vehicles?

Motorists are required to yield the right of way to transit vehicles traveling in the same direction, when the transit vehicle has signaled and is reentering the traffic flow.

Jaywalking—when is crossing a street not legal?

Crossing the street under the following conditions is not legal:

- crossing against a red light
- crossing at a crosswalk (marked or unmarked) while not fully in crosswalk or crosswalk area
- crossing an arterial street at a point other than a marked crosswalk or intersection
- causing a vehicle to have to brake suddenly, creating an unsafe condition.

Designated midblock crosswalks allow pedestrians to cross legally between two adjacent signalized intersections. Some portions of the Pike Place Market Historic District permit pedestrian crossings outside marked crosswalks.

Why are some curb ramps positioned so wheelchair users have to go out of the crosswalk area to enter and leave the street?

Some of these curb ramps were installed before the Americans with Disabilities Act (ADA) was passed; center or corner ramps were designed as a cost-effective way to accommodate both crossings at an intersection. The ADA now requires curb ramps to be within the crosswalk. SED meets this requirement wherever possible, but sometimes utility poles or other features of the street get in the way and the curb ramp must be designed to account for the existing conditions.

Where are pedestrians supposed to walk?

Where sidewalks are provided, pedestrians may not walk in the part of the roadway designated for motor vehicles unless circumstances require it. For example, if wheelchair access is not available, pedestrians in wheelchairs may use the roadway until they reach an access point in the sidewalk.

On streets without sidewalks, pedestrians are required, when practicable, to walk on the shoulder of the left side of the roadway, facing traffic.

How much time does a pedestrian have to cross the street at a pedestrian traffic signal?

Generally, the City of Seattle gives the pedestrian a minimum of 7 to 10 seconds of “walk” time.

What does the flashing “don’t walk” or the flashing hand symbol mean?

Flashing “don’t walk,” or the flashing hand symbol means don’t step off the curb. The pedestrian should have enough time to complete a crossing if he or she has already started.

When does the solid “don’t walk” come on?

Generally, the solid “don’t walk” comes on at the same time as the concurrent vehicular traffic receives a yellow light. This gives the pedestrian an additional 3 to 6 seconds to clear the intersection before conflicting traffic receives a green light.

I pushed the button, and the light changed for the car, but the “walk” light didn’t change. Why?

You may have pushed the button after the light began to change its cycle. The “walk” light should come on during the following green cycle.

What are pedestrians' rights at crosswalks?

Where there are no traffic control signals, or the signals are not operating, drivers are required to stop and remain stopped to allow pedestrians to cross the roadway within marked or unmarked crosswalks. Vehicles must stop if a pedestrian is in their half, or within one lane of their half, of the roadway. Once the pedestrian is beyond one lane of their half of the roadway, the vehicles may proceed.

If the pedestrian is crossing a roadway where there is an accessible pedestrian tunnel or overhead pedestrian crossing, the pedestrian is required to yield the right of way to vehicles.

What, and where, are unmarked crosswalks?

Crosswalks are defined as the portion of the roadway between the intersection area and the prolongation or connection of the farther sidewalk line, or, in the event there are no constructed sidewalks, then between the intersection area and a line ten feet therefrom, except as modified by a marked crosswalk. This means that all intersections contain legal crosswalks, regardless of whether or not they are marked.

What special considerations apply to sight-impaired pedestrians?

Drivers are required to exercise special care when approaching pedestrians carrying white or predominantly white canes, or using guide dogs. Drivers may not enter any crosswalk when a pedestrian with a white cane or guide dog is crossing, attempting to cross, or indicating an intention to cross.

What are the rights and duties of bicyclists on roadways?

Bicycles are considered vehicles. Bicyclists have all the rights, and are subject to all the duties applicable to drivers of vehicles, except as specifically provided in the Seattle Municipal Code Chapter 11.44, and except provisions that are not applicable by their very nature.

Are bicycles allowed on sidewalks?

Yes, provided the riders obey traffic control devices, yield right-of-way to pedestrians, give an audible signal when overtaking and passing pedestrians, and travel in a safe, prudent manner at a speed appropriate to conditions.

Are bicycles allowed on crosswalks?

Yes. In crosswalks, bicyclists have all the rights and duties applicable to pedestrians under the same circumstances, but they are required to yield to pedestrians.

Are skateboards and roller skates allowed on sidewalks and public paths?

Yes, provided the users obey traffic control devices, yield right of way to pedestrians, and travel in a safe, prudent manner at a speed appropriate to conditions.

Are skateboards and roller skates allowed on the roadway?

They are prohibited on bus routes and arterial streets except to cross at a crosswalk. In general, no one on roller skates, skateboards, coasters or toy vehicles may engage in any 'sport, amusement, exercise or play' in the roadway of any street.

What is the purpose of a yellow flashing beacon?

Yellow flashing beacons were used to caution traffic at busy intersections. However, SED does not install flashing yellow beacons anymore because they do not slow traffic and some drivers believe that the beacon flashes red for opposing traffic and accidents have occurred.

What is a stop sign used for?

Stop signs are intended to help drivers and pedestrians determine who has the right-of-way at an intersection. Stop signs are installed to assign right-of-way at intersections where accidents or other data show that the driver observance of the right-of-way law is not working.

Why not place a stop sign at every intersection?

Too many stop signs reduces the effectiveness in observing vehicle right-of-way and control of intersections. Where stop signs are installed as "speed breakers," there is a high incidence of intentional violation or running the stop sign.

Who has the right-of-way at an uncontrolled intersection?

The driver on the left should yield to the driver on the right. This is also true for intersections that are controlled by four stop signs or a traffic circle.

How do I drive around a traffic circle?

A driver should stay to the right when maneuvering around a traffic circle. However, if the driver is turning left, the driver can go to the left of the traffic circle as long as he/she yields to pedestrians and oncoming vehicles.

Wouldn't additional speed limit signs help to slow traffic?

In Seattle, the speed limit on residential streets is 25 mph and 30 mph on arterial streets, unless otherwise posted. Drivers are expected to know and obey the limit. Speed limit signs are usually only installed to indicate a change in the normal speed limit. Studies have shown that additional speed limit signs, if installed without informing people in additional ways, such as the Neighborhood Speed Watch program, will not slow traffic.

What do the "no stopping" signs that I see in downtown Seattle really mean?

"No Stopping" signs mean exactly what they say. If you need to drop off a passenger or make some other quick stop, move your vehicle to a meter space or load/unload zone. "No Stopping" signs are installed to keep the curb lane clear for traffic, to minimize congestion, and improve transit running time.

How do I get time-limit parking signs installed?

Time-limit signing is normally installed by request to provide parking turnover. This is often needed for visitors to nearby businesses. SED will install time-limit signs if the majority of the businesses on a block sign a petition in favor of the signs.

How do I get a change in parking meters?

Changing individual meter spaces is done on a request basis. Property owners can request changes in maximum meter time or meter removal and installation of a Passenger Load Zone or Commercial Load Zone. Uncontrolled spaces are not permitted in a metered area.

How can I get a disabled parking zone in front of my house?

Disabled zones are installed in front of residences only. The disabled resident must provide a Washington State permit number and have no other off-street parking available to them.

My driveway is often blocked by parked cars. Can I get a “no parking” sign?

Usually not. The Seattle Traffic Code allows the painting of the curb five feet on each side of a driveway with yellow paint to better define the driveway clearance area. This is to be done by the property owner. Look for “traffic yellow” spray paint at paint or hardware retailers. Be sure not to paint more than five feet of curb on either side of your driveway.

Glossary

ADA	Americans with Disabilities Act
alley	a road primarily used to access the rear of residences and businesses, not designed for general travel
arterial street	a route used primarily for the movement of traffic, which may be both local and non-local in nature
asphalt concrete	a concrete composition in which asphalt is used as a binder. Asphalt concrete is a material often used for roadway pavement
asphalt shim	a thin strip of asphalt used to fill uneven road surfaces as a temporary measure
at-grade crossing	the general area where two or more roadways, railways, and/or pathways join or cross, as in an <i>at-grade</i> railroad <i>crossing</i>
BIA	Business Improvement Association (see page 128)
bicycle facility	an improvement designed to facilitate accessibility by bicycle, including bicycle trails, bicycle lanes, and storage facilities
bicycle lane	a portion of the roadway which has been designated by traffic-control devices for preferential or exclusive use by bicycles
bicycle path	an access route, usually scenic, for the exclusive use of bicycles and pedestrians
bicycle route	a vehicular route, identified by a sign, that provides continuity to the bicycle transportation network
bollard	a post or similar obstruction that prevents the passage of vehicles. The spacing of bollards usually allows the passage of bicycles and pedestrians. Bollards may incorporate lighting.
boulevard	street classification encouraging physical design features that provide a park-like atmosphere and/or enhance appreciation or use of adjacent parkland, on a street otherwise intended to move traffic
buffer	a strip of land that physically and/or visually separates two land uses, especially if the uses are incompatible
bus pullout/turnout	a section of pavement at a bus stop that allows buses to leave the flow of traffic while stopped to load and unload passengers

bus shelter	any covered area within a bus stop zone that provides riders protection from the weather
bus zone	a portion of the roadway along the curb which is reserved for loading and unloading of either local transit or school buses
catch basin	a receptor, typically of masonry with cast iron top grate, that receives surface water runoff or drainage
center line	the line separating traffic travelling in opposite directions
chip seal	a thin asphalt surface treatment used to waterproof and improve the texture of the wearing surface of a pavement
combined sewer	a wholly or partially piped system which is owned, operated, and maintained by a local municipality or sanitary district, and that is designed to carry sewage or drainage water
commercial load zone	a portion of a street designated by a sign and yellow paint markings, reserved for the exclusive use of vehicles with a valid commercial load zone permit
concrete	a hard, strong construction material made by mixing a binder such as portland cement or asphalt with a mineral aggregate (sand and gravel) so that the entire mass is bound together and hardened
crosswalk	the marked or unmarked portion of the roadway designated for pedestrians to cross the street
crosswalk beacon	amber flashing lights, usually accompanied by a sign, used to notify motorists of a pedestrian crosswalk
cul de sac	a street closed at one end that is enlarged to provide turn around space for motor vehicles
culvert	a transverse drain under a roadway, canal, or embankment other than a bridge. Most culverts are fabricated with materials such as corrugated metal and precast concrete pipe
curb	a rim along a street or roadway, an edge for a sidewalk. A curb is usually constructed from cement concrete, asphalt concrete, or granite. Curbs create a physical barrier between the roadway and the planting strip, which provides a safer environment for pedestrians, and facilitates street drainage.

curb bulb	an extension of the curb line into the roadway
curb cut	used to describe a depression in the curb to accommodate a driveway. Where there is no curb, the point at which the driveway meets the roadway pavement is considered the curb cut.
curb line	the edge of a roadway; it may or may not be marked by a curb.
curb radius	refers to the degree of curvature of the curb at a corner. Other conditions being equal, a large curb radius allows right-turning vehicles to turn more quickly than a small curb radius.
curb ramp	the area of the sidewalk, usually at the intersection, that allows easy access/transition for wheelchairs, strollers, and other wheeled equipment, between the sidewalk and the street
DCLU	Department of Construction and Land Use
DON	Department of Neighborhoods
dead-end street	street-end formed when an existing right-of-way is not platted through from street to street, or when topography or other conditions preclude a street from being improved to its full length
drainage swale	a shallow, grassy drainage channel that accommodates surface water runoff. Used on streets without curbs and gutters.
driveway	the portion of the street or alley area which provides vehicle access to an off-street area through a depression in the curb
effective sidewalk width	the width of the sidewalk area available for walking or wheel-chair travel, unobstructed by street furniture or other impediments
fire lane	an area on public or private property reserved for providing Fire Department access to structures, fire-fighting fixtures or equipment
fog line	the white line at the outside edge of the motor vehicle travel lane, used to designate the boundary of the vehicle travel lane
grade	the percent of slope in the road
grade-separated crossing	an interchange between roadways, railways, or pathways that provides for the movement of traffic on different levels

green time	the length of time a traffic signal indicates a green light
HOV	high occupancy vehicle; typically referring to a transit vehicle, carpool, or vanpool
inlet	an opening at the surface of the ground through which runoff water enters the drainage system
intersection	a place or area where two or more roads cross
kiosk	a small freestanding structure either open or partially closed, where merchandise is displayed, advertised, or sold, or where notices are displayed
LID	Local Improvement District (see page 127)
landmark	a building, structure or site that has historical or architectural significance, especially a structure designated as a landmark pursuant to the Landmarks Preservation Ordinance
landscape lighting	lighting that is designed to accompany and illuminate landscaping features
lane line	a solid or broken paint line or other marker separating lanes of traffic moving in the same direction
load and unload zone	a portion of the street or alley, designated by a sign and white paint markings, reserved for picking up and dropping off people or property
loop detector	a wire buried in the street and connected to a traffic signal allowing the signal to sense the presence of vehicle traffic. Used with demand-activated signal lights.
major truck street	a street designated to provide access to trucks with local and non-local destinations
marked crosswalk	any portion of the roadway distinctly indicated for pedestrian or bicycle crossing by lines, marking, or other traffic control devices
median	a physical barrier, or a solid yellow or cross hatched pavement marking at least 18" in width, which divides any street into two or more roadways
NMF(P)	Neighborhood Matching Fund (Program), administered by the Department of Neighborhoods (see description on page 96)

off–street parking	publicly or privately owned parking located outside the street right–of–way
open space	land and/or water area with its surface open to the sky or predominantly undeveloped, which is set aside to serve the purposes of providing park and recreation opportunities, conserving valuable resources, and structuring urban development and form
parking turnout/curb setback	a parking area within the right–of–way and outside the normal curb line. Installation requires removal of the planting strip.
pedestrian	any person on foot or in a wheelchair
pedestrian detectors	devices, usually push-button activated, that allow pedestrians or bicycles to change the signal light at a crosswalk
pedestrian–friendly	describing an environment that is pleasant and inviting for people to experience on foot; specifically, offering sensory appeal, safety, street amenities such as plantings and furniture, good lighting, easy visual and physical access to buildings, and diverse activities
pedestrian half signal	a traffic control signal often located at the junction of an arterial and a residential street, which provides pedestrian signals for crossing the arterial but not for crossing the residential street
pedestrian overpass	a pedestrian walkway above the grade of the roadway, which allows pedestrians to cross the roadway without interacting with motor vehicles
pedestrian refuge island	a defined area between traffic lanes that provides a safe place for pedestrians to wait as they cross the street
pedestrian scale lighting	overhead street lighting which is typically over the sidewalk instead of the roadway, and at a lower height than typical street light fixtures; providing illumination for pedestrians instead of motorists
pedestrian signals	electronic devices used for controlling the movement of pedestrians at signalized mid-blocks or intersections, which may include the “walk/don’t walk” messages or the symbolic walking person/hand message

pedestrian walkway	a surfaced walkway, separated from the roadway, usually of crushed walk or asphalt concrete, and following the existing ground surface (not at permanent grade)
planting strip	the street right-of-way area lying between the constructed curb and the sidewalk
principal arterial	a main traffic route which connects major activity centers, usually characterized by trip lengths of two miles or more
priority network	a Comprehensive Plan designation indicating the primary function(s) of a street. These are transit priority networks, major truck streets, and principal arterials.
residential parking zone	a designated zone in which on-street parking for the general public is restricted. Residents of the area are exempted from the parking restrictions by permit.
residential street	a non-arterial street that provides access to residential land uses, and connects to higher level traffic streets; also called residential access street
resurfacing	the placing of a new surface on an existing pavement to improve its conformation or to increase its strength
retaining wall	a structure used to sustain the pressure of the earth behind it
right-of-way	(1) a strip of land platted, dedicated, condemned, established by prescription, or otherwise legally established for the use of pedestrians, vehicles or utilities; (2) the legal right of one vehicle, bicycle, pedestrian or device to proceed in a lawful manner in preference to another vehicle, bicycle, pedestrian or device
SED	Seattle Engineering Department
sandwich boards	stand-up A-shaped signs often placed on the sidewalk or street right-of-way to advertise a business or an attraction
sanitary sewer	a piped system which is owned, operated, and maintained by a local municipality or sanitary district, and that is designed to carry only sewage
school crossing	a crossing adjacent to a school or on established school pedestrian routes, designated as a preferred crossing for school users

school zone	an established reduced speed area. Installed around established school crossings; speed limits are posted at 20 mph.
service lane	the curb lane that provides access to businesses for service vehicles
setback	the required or actual placement of a building a specified distance away from a road, property line, or other structure
shoulder	the paved or unpaved area between the roadway edge and the property line
side sewer	a privately owned system for transporting and disposing of drainage water and sewage
sidewalk, concrete	the improved portion of a street or roadway between the curb lines and the adjacent property lines, intended for use by pedestrians
sight distance	the length of roadway visible to a driver
signal timing	the green time allotted each direction of travel. The time between start of green for adjacent/sequential traffic signals.
signs	provide information to motorists, pedestrians and bicyclists. Black and white regulatory signs provide information on legal requirements. Black and yellow warning signs advise about potentially hazardous roadway conditions. Green or white guide/destination signs provide navigational information along streets, and inform about intersecting routes and important destinations.
slope line	the line where the graded portion of the roadway from the center line toward the edge changes to the transition slope required to meet the surface of the abutting private property
slope	ground that forms a natural or artificial incline
staired street	street rights-of-way on hillsides which have been developed as stairs for pedestrians, not roadways for motor vehicle use
stop bar	a painted stripe across a traffic lane to indicate where vehicles should stop at a stop sign or a traffic signal
street-end	formed where an existing right-of-way ends or is not platted through from street to street, often due to topographical conditions (such as bluffs or shorelines)

street furniture	accessories and amenities placed on sidewalks for the convenience and accommodation of pedestrians. These may include such things as benches or other seating, trash receptacles, drinking fountains, planters, kiosks, clocks, newspaper dispensers, or telephones.
street improvement	an improvement in the public right-of-way, whether above or below ground, such as pavement, sidewalks, or a storm water drainage system
streetscape	the visual character of a street as determined by elements such as structures, greenery, driveways, open space, view, and other natural and man-made components
street tree	a tree planted within public right-of-way
street tree grates	grates, usually metal and often decorative, that cover street tree pits and allow air and water to reach the soil
street tree pits	cutouts from a sidewalk or paved planting strip, to allow air and water to reach the trees planted in the cutout
storm drain	a system of gutters, pipes or ditches used to carry storm water from surrounding lands to streams and lakes, and larger bodies of water
T-intersection	the meeting of two streets, usually perpendicular, where one of the streets does not continue through (approximately resembling the letter “t”)
traffic actuated signal	a signal that responds to the presence of a vehicle or pedestrian (for motor vehicles, loop detectors; for pedestrians, usually push buttons)
traffic calming	of or relating to transportation techniques, programs, or facilities intended to slow the movement of motor vehicles
traffic control device	any sign, signal, marking, or device placed or erected for the purpose of regulating, warning, or guiding vehicle traffic and/or non-motorized traffic
traffic signal	any traffic device, whether manually, electrically or mechanically operated, which assigns right-of-way to vehicles and pedestrians at intersections

transit priority network	consisting of those streets and highways that carry local and regional transit trips, as designated in Seattle's Comprehensive Plan
transit stop or transit station	a regular stopping place on a transit route which may include transit shelter and parking
travel lane	roadway lanes on which traffic moves
two-way left turn lane	a lane near the center of the roadway set aside for use by vehicles making left turns in both directions from or into the roadway
uncontrolled intersection	an intersection where the right-of-way is not controlled by a stop sign, yield sign, or traffic signal
urban trails	off-road trails, special bike lanes, and signed routes in the street right-of-way
utility poles	poles used to carry utility wires, such as electric, cable television, telephone, or electrified trolley wire. May belong to Metro, telephone companies, power companies, or any combination of these.
walkway	a portion of the right-of-way designated for pedestrian use, usually of paved asphalt

Telephone Numbers for More Information

Business Improvement Associations

Office of Economic Development small business info .. 684-0700

Department of Finance 684-0219

City Light

Illumination Section 654-2746

Tree Pruning and Replacement 625-3000

Department of Construction and Land Use

Land Use Information 684-8850

Department of Housing and Human Services

P-Patch Program 684-0264

Department of Neighborhoods

Neighborhood Matching Fund 684-0464

Historic Landmarks/Districts (Urban Conservation) .. 684-0228

Design Commission

General Information 684-0435

King County Department of Transportation (Metro)

Bus Shelter Mural Program 684-1523

Customer Services Department 553-3060

Community Relations 689-3793

Transit Speed and Reliability Program 689-3583

Neighborhood Planning Office

General Information 684-8398

Neighborhood Planning Hotline 684-5140

Public Information 233-0037

Project Managers:

Ballard, Wallingford 684-8189

Capitol Hill, First Hill 684-8073

Central Area 684-5684

Downtown, South Lake Union 684-0359

Fremont, Queen Anne, Interbay, Magnolia 684-8583

Neighborhood Planning Office (continued)

Greater Duwamish, Int'l District	684-8414
Greenwood, North End	684-8745
Southwest King County	684-8495
University District	684-8501
West Seattle	684-8403

Office of Management and Planning

General Information	684-8080
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Seattle Engineering Department

SED General Information	684-ROAD
Bicycle Program	684-7584
City Arborist	684-7570
Curb Ramps	684-5377
Drainage and Wastewater Utility	684-7868
Litter and Graffiti Hotline (Solid Waste Utility)	684-7587
Local Improvement Districts (LIDs)	684-7580
Neighborhood Clean-Up (Solid Waste Utility)	684-0190
Neighborhood Plan Coordinator—Central	684-8681
Neighborhood Plan Coordinator—North	684-5050
Neighborhood Plan Coordinator—South	684-0811
Neighborhood Speed Watch Program	684-7577
Pedestrian Program	684-7583
Residential Street Programs	684-7577
Solid Waste Utility info line	684-5004
Spring Clean Program (Solid Waste Utility)	684-7666
Landscape Services (street tree information)	684-5042
Temporary Street Patching (pothole repair)	386-1218
Traffic Signals	684-5119
Tree Stewards Program	684-5008
TREEmendous Seattle	624-7075

Acknowledgments

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Special thanks

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Supporting Organizations and Individuals

Key support and leadership for this project has generously been given by the following:

Seattle City Council
Honorable Martha Choe
Honorable Jim Street

Seattle Design Commission
Dennis Haskell, Chair
Marcia Wagoner, Executive Director

Seattle Engineering Department
John Okamoto, Director

Seattle Office of Management and Planning
Tom Tierney, Director

Seattle Pedestrian Advisory Board
Jeanne Krikawa, (past) Chair